# LEVEL 1 SAMPLE EXAM

# STUDY SEMINAR FOR FINANCIAL ANALYSTS®

and

# **SCHWESER STUDY PROGRAM**

# **MAY 2001**

# 180 MINUTES

Each question is worth 1.5 points

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#### The following 18 questions relate to Ethics.

- 1. Which of the following should an analyst do to comply with Standard I(A), Fundamental Responsibilities, Maintaining Knowledge of and complying with the Law?
  - A. learn the laws and rules governing her/his conduct.
  - B. seek the advice of counsel when in doubt concerning the requirements of the law.
  - C. establish and implement internal compliance procedures designed to prevent legal violations and follow them.
  - D. all of the above.
- 2. Janet Olson, CFA, is an analyst at Quantech Associates. Olson attended a conference at which Brian Wright presented several proprietary computerized spreadsheets that he had developed to value high-tech stocks. While at the conference, Olson copied the spreadsheets without Wright's knowledge. Later, Olson made several minor changes to Wrights initial model. After testing the revised model, Olson was impressed with the results. As inputs for the model, she used factual materials supplied by Moody's Investors Service, a recognized financial and statistical reporting service. Olson wrote a research report describing the revised model and its results and distributed the report to Quantech's clients. According to the AIMR Standards of Professional Conduct, which of the following actions is Olson required to take? Olson is:
  - A. required to seek the authorization from Wright to copy the spreadsheets, acknowledge Wright for developing the initial model but is not required to acknowledge Moody's Investors Service as the source of the data.
  - B. required to seek authorization from Wright to copy the spreadsheets and acknowledge Wright for developing the initial model and Moody's Investors Service as the source of the data.
  - C. required to acknowledge Moody's Investors Service as the source of the data but is not required to seek the authorization from Wright to copy the spreadsheets or to acknowledge Wright for developing the initial model.
  - D. not required to seek authorization from Wright to copy the spreadsheets or to acknowledge either Wright for developing the initial model or Moody's Investor's Service as the source of the data.
- 3. While on a business trip, John Hayes, CFA, found a notebook that had apparently been left in the waiting area of an airport. Hayes opened the notebook and read the title: Confidential: 2001 Level II CFA Examination. Before returning the notebook to AIMR, he made a copy and gave it to Linda Sacket, one of his firm's analysts, who was a candidate for Level II of the CFA examination. Hayes reasoned that AIMR would not use these questions and that Sacket would benefit from reviewing these questions. Sacket read the questions and guideline answers before taking the Level II examination. According to the AIMR Standards of Professional Conduct involving professional misconduct:
  - A. Hayes violated the Standards, but Sacket did not.
  - B. Sacket violated the Standards, but Hayes did not.
  - C. neither Haves nor Sacket violated the Standards.
  - D. both Hayes and Sacket violated the Standards.

- 4. Alta Cocker manages several pension accounts and directs most of her trades through the BBB Brokerage House. Alta does this because she feels she gets good executions and BBB provides her with excellent research reports used in the management of all these accounts. Alta has just been approached by Regional, a small discount brokerage house, that they will execute her trades at half the cost of BBB. Regional does not have a research department. If Alta does not switch her business to Regional has she violated the loyalty clause in her fiduciary duties?
  - A. Yes, because Standard IV(B.1), Fiduciary Duties, says she must minimize expenses.
  - B. No, because she already had an established relationship with BBB before Regional's offer.
  - C. Yes, because of the prudent expert clause.
  - D. No, if she can determine, in good faith, that the higher commissions are commensurate with the value of the research services she receives.
- 5. Jill called Jack and tells him that her research shows that Hill Company is overpriced and will come tumbling down any time now. After Jill hangs up, Jack gets all the firm's portfolio managers together through a conference call and announces that his research indicates Hill is a strong sell.
  - A. Jack has just plagiarized Jill's research since he did not credit her as the source.
  - B. Jack did not commit plagiarism because Jill's comments were verbal.
  - C. Since Jill told Jack the information is now public, Jack can do what he wants with it.
  - D. This type of information transfer happens all the time and is not considered plagiarism.
- 6. Star, a portfolio manager for a large Texas investment firm, has been offered compensation in addition to what his firm pays him. The offer is from one of his clients and the additional compensation will be based on his yearly performance in excess of the market index. Star should:
  - A. turn down the offer because it represents a clear conflict between this client and Star's other clients
  - B. obtain written permission from his employer before he can accept this offer.
  - C. obtain written permission from AIMR before he can accept this offer.
  - D. obtain written permission from his employer and other clients before he can accept this offer.
- 7. D. A. Bulls, CFA, supervises a group of research analysts, none of whom are CFAs or CFA candidates. He has attempted on several occasions to get his firm to adopt a compliance system to insure that applicable laws and regulations are followed. However, the firm's principals have never adopted his recommendations. At this point, D. A. should:
  - A. take no action, because he has fulfilled his obligations under AIMR's Standards.
  - B. refuse to accept supervisory responsibility until reasonable compliance procedures are adopted.
  - C. take no action, because the employees are not CFAs or CFA candidates.
  - D. resign, because no other alternative that will keep him in compliance with AIMR's Standards.
- 8. L. V. Sun, an analyst for a large Minnesota investment firm, has been offered an all expenses paid trip by P. N. Apple Co. to visit the firm's processing plants in Maui, Oahu, and Kauai. Sun, a food industry analyst, has been following P. N. Apple's stock for several years and recently issued a buy recommendation for it. Sun feels a review of the firm's processing facilities during their busy January harvest period would be an excellent opportunity for him to assess the firm's productive capacity and learn about the business. What should Sun do?
  - A. turn down the offer, because it represents a clear conflict of interest.
  - B. accept the expense paid trip, but disclose the value of the trip in his next report.
  - C. obtain written permission from AIMR, before he accepts this offer.
  - D. go, but pay for all his travel expenses, including the cost of meals and incidental items.

- 9. You are at the XYZ Corporate anniversary party. XYZ gave all the analysts who have been following and recommending their stock for the past 10 years gold Rolex watches. What should you do with your watch?
  - A. Thank the XYZ company president for the gift.
  - B. Thank the company for the gift but return it.
  - C. Inform you supervisor in writing about the extra compensation arrangement.
  - D. Nothing since it is a gift.
- 10. In formulating her report, Lee Ward did a complex series of statistical test on Ship Co.'s past sales and earnings. Based on this statistical study Lee stated in her report that Ship Co.'s earning for the next 5 years will be 15 percent per year. Has Lee violated Standard IV(B.2c) (distinguish between fact from opinion)?
  - A. No, since her statements are based on sound research.
  - B. Yes, since her data qualifies as inside information.
  - C. Yes, she has failed to separate the past from the future by indicating that her projections are estimates and opinions.
  - D. No, since her statistical studies are based on known historical data and her projections are within the bounds of statistical accuracy.
- 11. Midland Investment Banking issued a prospectus for its open-end Midland Gold Fund. In the prospectus, the investment policy was disclosed as, "We will maintain an investment posture of 50 percent or more in gold stocks and/or bullion, depending upon market conditions." This policy was maintained until the price of gold fell by 20 percent, leaving the fund 40 percent invested in gold stocks and bullion. Management has decided that since the allocation was effected by market conditions, no action to either change the investment policy or to rebalance the portfolio is required. This decision is:
  - A. in violation of the Standard concerning prohibition against misrepresentation.
  - B. in violation of the Standard concerning portfolio investment recommendations and actions.
  - C. under the circumstances, not in violation of the Code and Standards.
  - D. in violation of the Standard concerning fiduciary duties to clients.
- 12. Donna Sorenson, CFA, is a stock analyst at a large multinational bank trust department. A cash tender offer was announced by a company whose stock was held by Donna's employer as well as by her Mother. Under the terms of the offer, the first million shares tendered would be accepted in full at \$30 a share (which was 20% above the existing market) and the next one million shares on a pro rata basis also at \$30 a share. Donna immediately called her Mother with the news but waited a few days to tender holdings of the trust department. This situation violated Standard:
  - A. IV(B.3), Fair Dealing with Customers and Clients.
  - B. III(B), Duty to Employer.
  - C. IV(A.3), Independence and Objectivity.
  - D. IV(B.4): Priority of Transactions.

- 13. N. A. Vyce, a CFA candidate, tells a prospective client, "I may not have a long-term track record yet, but I am sure that you will be satisfied with my performance. Over the three years that I have been in the business, my equity-oriented clients have averaged a total return of over 20 percent a year." The statement is technically true but Vyce only has a few equity clients, and one of these took a large position in a penny stock (against Vyce's advice) and realized a huge gain. This large return caused the average of all of Vyce's clients to exceed 20 percent per year. Without this one investment, the average gain would have been 10 percent per year. Has Vyce violated the Standards of Professional Conduct?
  - A. Yes, because the statement on return ignores the risk preferences of his clients.
  - B. No, because Vyce is not promising that he can earn this return in the future.
  - C. No, because the statement is a true and accurate description of Vyce's track record.
  - D. Yes, because the statement misrepresents Vyce's track record.
- 14. Terry, a CFA candidate, is an analyst with a large pension company. His personal portfolio includes a significant amount of TECH common stock that his firm is not currently following. The director of the research department has just asked Terry to analyze TECH and write a report about its investment potential. Based on AIMR Standards of Professional Conduct, Terry should:
  - A. Decline to write the report without specific approval of his supervisor.
  - B. Sell his shares of TECH before completing the report.
  - C. Place his shares of TECH in a trust.
  - D. Disclose the ownership of the stock to his employer and in the report.
- 15. Ryan Brown, CFA, is an analyst with a large insurance company. His personal portfolio includes a significant investment in QRS common stock that his firm does not currently follow. The director of the research department asked Brown to analyze QRS and write a report about its investment potential. Based on AIMR Standards of Professional Conduct, Brown should:
  - A. disclose the owernership of the stock to his employer and in the report.
  - B. decline to write the report without specific approval of his supervisor.
  - C. sell his shares of QRS before completing the report.
  - D. place his shares of QRS in a trust.
- 16. Arrow, director of Target Investment's institutional division, is currently putting together an initial public offering with Dart Industries. Target's brokerage division currently has a sell recommendation on Dart Industries. Arrow has approached Pike, Target's senior analyst, and asked him to change the sell to a buy recommendation so that the IPO will be easier to float. Pike has contacted you, the firm's compliance officer for guidance. What should you do?
  - A. Report Arrow to AIMR, since he violated Standard IV(A.3), Independence and Objectivity.
  - B. Indicate that the recommendation be changed to a hold rather than a buy.
  - C. Have a review committee analyze Dart Industries to see if an upgrade is warranted.
  - D. Place Dart on the restricted list and instruct the firm's brokers to only disseminate factual information about Dart until after the IPO is concluded.
- 17. Avery, the pension fund manager for the Worker's Union, has been informed by the union president, Jamie Hoffa, that during a union meeting today with the Big Tyme Corporation he was told that Big Tyme will announce several plant closings tomorrow. Since the Worker's Union pension has a sizable position in Big Time, Jamie wants Avery to sell the pension's holdings in Big Tyme today before the announcement is made public. Avery should:
  - A. sell the pension's holdings in Big Tyme as directed.
  - B. tell Jamie that this action is illegal and refuse to sell the stock until after the announcement.
  - C. contact the Justice Department and tell them about Jamie's request.
  - D. inform AIMR in writing of Jamie's request.

- 18. Which one of the following is *not* consistent with AIMR's Performance Presentation Standards?
  - A. Composites returns *must include* cash and cash equivalents.
  - B. Composites must include all portfolios based on equal weighting.
  - C. Performance must be presented on a total return basis using accrual-basis accounting calculated using time weighted rates of return averaged using the geometric method.
  - D. Presentation of performance must disclose a measure of dispersion of individual component portfolios about the aggregate composite return.

## The following 18 questions relate to quantitative methods:

- 19. What is the present value of a ten-payment annuity of \$1,000 at 8% interest? The first of the ten payments is to be received today.
  - A. \$5,002
  - B. \$6,247.
  - C. \$6,710.
  - D. \$7,247.
- 20. If you invest \$500 at the end of the first year, \$500 at the end of the second year, withdraw \$200 at the end of the third year, and invest another\$500 at the end of the fourth year. How much will you have accumulated at the end of the fourth year? Your investment rate is 10%.
  - A. \$955.00
  - B. \$1,050.00
  - C. \$1,550.50
  - D. \$1,990.50
- 21. When constructing a frequency distribution all of the following statements are generally *true* except:
  - A. The classes should be mutually exclusive.
  - B. The lower limit of the first class should be an even multiple of the class interval.
  - C. The upper limit of the upper class interval should be open ended.
  - D. The class intervals should be equal sized.
- 22. When reviewing a stem-and-leaf display all of the following statements are generally *true* except:
  - A. For a two digit number the stem is the right digit and the leaf is the left digit.
  - B. If the display is arranged numerically the median of can be determined by starting with the first leaf in the display counting forward n/2 numbers.
  - C. The advantage of using the stem-and-leaf display is that you retain all the essential information contained in the data set.
  - D. For the number 72, the leaf would be 2.

23. Based of the following table what are the mean and median (respectively) of the frequency distribution?

Class	Frequency
20 up to 30	5
30 up to 40	20
40 up to 50	30
50 up to 60	10

- A. 41.9 42.5 B. 41.9 45.2 C. 42.8 42.5 D. 45.0 45.2
- 24. The initial market value of a portfolio was \$100,000. One year later the portfolio was valued at \$90,000 and two years later at \$99,000. The portfolio's arithmetic and geometric mean returns excluding any dividend income are:

	Arithmetic Mean	Geometric Mean
A.	-1%	0%
B.	0%	5%
C.	0%	0%
D.	-1%	+.5%

- 25. Given the following figures: 25, 15, 35, 45, and 55 for a data set. What is the range, mean absolute deviation, and variance of this population's data set?
  - 1000 20 60 A. B. 25 12 200 C. 40 12 200 40 60 D. 1000
- 26. Given a population of 10, 5, and 15 the coefficient of variation would be:
  - A. 30%
  - B. 40%
  - C. 60%
  - D. 100%

27. An analyst developed the following list of the potential rates of return for Stock A under four scenarios and later revised the expected rate of return for each scenario. If Stock A's original standard deviation of expected rate of return is 20 percent, Stock A's revised standard deviation of expected rate of return will be:

	Original Expected	Revised Expected
Scenario	Rate of Return	Rate of Return
1	15.0%	15.9%
2	20.0%	21.2%
3	25.0%	26.5%
4	30.0%	31.8%

- A. 21.2%
- B. 22.5%
- C. 20.6%
- D. 21.8%
- 28. Given an investment portfolio with a mean return of 15% and a variance of 9 what is the probability that the fund will earn 12% or more?
  - A. .34
  - B. .16
  - C. .84
  - D. .56
- 29. Given the following table about employees of a company based on whether they are smokers or nonsmokers and whether or not they suffer from any allergies, what is the joint probability of being a smoker and not suffering from allergies?

	Suffer from Allergies	Don't Suffer from Allergies	Total
Smoker	35	25	60
Nonsmoker	55	185	240
Total	90	210	300

- A. .459
- B. .833
- C. .083
- D. .162

- 30. Which of the following statements regarding Type I and Type II errors is TRUE?
  - A. A Type I error is rejecting the null hypothesis when it is actually true.
  - B. A Type II error is rejecting the alternative hypothesis when it is actually true.
  - C. A Type I error is accepting the null hypothesis when it is actually false.
  - D. A Type II error is rejecting the null hypothesis when it is actually false.
- 31. An investment has a mean return of 15%, and a standard deviation of returns equal to 10%. Which of the following statements are true?
  - I. The probability of obtaining a return between 5% and 25% is 68%.
  - II. The probability of obtaining a return of over 35% is 2.5%.
  - III. The probability of obtaining a return less than 5% is 16%.
  - IV. The probability of getting a return in excess of 5% is 84%.
  - A. I and II only.
  - B. II and IV only.
  - C. I, II. and III only.
  - D. I, II, III, and IV.
- 32. If the p-value for a hypothesis test is 0.07 and the chosen level of significance, alpha = 0.05, then the correct conclusion is to:
  - A. accept the alternative hypothesis.
  - B. not enough information is given.
  - C. do not reject the null hypothesis.
  - D. reject the null hypothesis.
- 33. Which of the following represents the first 4-period centered moving average given the following information?

Period	<u>y</u> t
1	15
2	27
3	20
4	14
5	25
6	11

- A. 21.5
- B. 20.25
- C. 19.0
- D. 19.5

- 34. You regress the Y variable against the X variable and get a regression line that is flat with the plot of the pared observations widely dispersed about the regression line. Based on this information, which statement is most accurate?
  - A. X is perfectly positively correlated to Y.
  - B. X is perfectly negatively correlated to Y.
  - C. The  $R^2$  of this regression is close to 100%.
  - D. The correlation between X and Y is close to zero.
- 35. All of the following statements are *true* except:
  - A. R-squared measures the percentage of the Y variable's variability that is explained by the regression equation.
  - B. The standard error of the estimate, the dispersion of the error terms about the regression line, represents the Y variable's unexplained variation.
  - C. The correlation coefficient tells you how close the actual observations are to the regression line.
  - D. The coefficient of determination,  $R^2$ , is the square root of the correlation coefficient.
- 36. The results of regressing Y's returns against X's returns are indicated below.

	coefficient	Z-statistic
intercept	2.5	1.4
slope	1.2	3.5

The critical Z-statistic is 1.96

 $R^2 = .45$ 

The standard error of the estimate = 5

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

- A. 12.0
- B. 14.5
- C. 15.0
- D. 37.0

#### The following 14 questions relate to economics.

- 37. Assume the **reserve requirement** is 10%. A bank has cash on deposit with the FED of \$35 million. Loans of \$50 million and demand deposits of \$300 million. This bank can:
  - A. make no additional loans.
  - B. make \$5 million in additional loans.
  - C. make \$10 million in additional loans.
  - D. make \$20 million in additional loans.

- 38. The impact of increasing the money supply in an economy that is at its full employment level is:
  - A. higher unemployment.
  - B. lower nominal interest rates.
  - C. higher output.
  - D. higher prices
- 39. Monetarist believe that **discretionary monetary** policy:
  - A. has tended to stabilize on the economy when it was used.
  - B. does not work because velocity is unstable and counteracts the effects of monetary policy.
  - C. has tended to destabilize the economy when used.
  - D. should be used in conjunction with fiscal policy for the best results.
- 40. **Rational expectations** theory would imply which of the following:
  - A. in the long-run, there is no trade-off between inflation and unemployment.
  - B. expansionary monetary policy would not affect the unemployment rate.
  - C. predictable fiscal and monetary policies are the best for the economy.
  - D. all of the above.
- 41. If the admission price for a rock concert is raised from \$25 to \$30 causing attendance to drop from 60,000 to 40,000, the price elasticity of the demand for attending the concert is:
  - A. 0.25
  - B. 0.50
  - C. 1.65
  - D. 2.20
- 42. The difference between the amount that consumers would be willing to pay and the amount they actually pay for a good is called:
  - A. price elasticity of demand
  - B. the substitution effect
  - C. income elasticity of demand
  - D. consumer surplus
- 43. An increase in the consumption of a good resulting from a reduction in price that makes the good cheaper in relation to other goods is referred to as:
  - A. the income effect.
  - B. the substitution effect.
  - C. the real balance effect.
  - D. the elasticity of income effect.
- 44. Which of the following statements is true of a **monopolist**?
  - A. A profit maximizing monopolist will expand output until MR = MC.
  - B. A monopolist will always be able to earn economic profit.
  - C. A profit maximizing monopolist will supply less of his product than the amount consistent with the conditions of ideal static efficiency for an economy.
  - D. a and c are true; b is false.

- 45. Under **monopolistic competition**, in long-run equilibrium the firms in the market will earn:
  - A. substantial economic profits.
  - B. zero economic profits.
  - C. substantial economic losses.
  - D. above the firm's weighted average cost of capital.
- 46. According to the **law of comparative advantage**, joint output will be greatest when each country:
  - A. specializes in the production of those products for which they are the low opportunity cost producer.
  - B. specializes in the production of those products for which they are the high opportunity cost producer.
  - C. raises tariff barriers to protect its domestic industries from cheap foreign products.
  - D. imposes quotas in order to protect its domestic industries from cheap foreign labor.
- 47. The table below outlines the possible tradeoffs of producing milk and bread for Country A and Country B.

Country A		Country B	
Milk	Bread	Milk	Bread
0	5	0	8
10	0	12	0

- A. Both countries would gain if Country A traded bread for B's milk.
- B. Both countries would gain if Country A traded milk for B's bread.
- C. Neither country would gain from trade.
- D. Country A would not gain from trade, because it has an absolute advantage in the production of both goods.
- 48. Which of the following would be most likely to cause a nation's **currency to depreciate**?
  - A. an increase in the nation's domestic rate of inflation
  - B. an increase in inflation rates of the nation's trading partners
  - C. a decrease in the nation's domestic rate of inflation
  - D. an increase in domestic real interest rates

49. Bill Austin is the CFO of TexMax, a mid-size manufacturing firm located in the Western U.S. Austin expects to see an increasing percentage of the firm's revenue come from international sales, especially sales to Germany and the U.K. Since TexMax is a relative newcomer to international trade, Austin feels the need to exercise extreme caution in managing the firm's foreign exchange risk. The firm recently shipped large orders to customers in both Germany and the U.K. and expects payment on both shipments in 90 days. Current exchange rates are as follows:

Quote	Spot	90-day forward
\$/DM	.4552	.4723
\$/£	1.2312	1.2114

Assume you are in Germany. What is the Deutsche mark/pound sterling spot cross-rate stated as a direct quote?

- A. 0.3697.
- B. 0.5604.
- C. 1.7843.
- D. 2.7047.
- 50. If  $(r_D r_F) < Forward premium$ , which is (Forward (D/F) Spot(D/F)) / Spot (D/F) then:
  - A. arbitrage opportunities don't exist.
  - B. you cannot determine if arbitrage opportunities exist with the data given.
  - C. borrow local currency and lend out foreign currency.
  - D. borrow foreign currency and lend out local currency.

## The following 25 questions relate to accounting.

- 51. At the time Marsh became a subsidiary of Ross, Marsh switched depreciation of its plant assets from sum-of-the-years' digits to straight-line that was used by Ross. With respect to Marsh, this change was a:
  - A. correction of an error.
  - B. change in accounting principle.
  - C. change in an accounting estimate.
  - D. change in a reporting entity.
- 52. All of the following statements are *true* except:
  - A. When a zero coupon bond is issued the bond account is booked for the actual amount received and the unamortized discount account is booked for the balance.
  - B. Each year the imputed interest on a zero coupon bond is deducted from the unamortized discount account and added to the bond account.
  - C. Over time the interest expense on a zero coupon bond will decrease as the unamortized discount account declines.
  - D. If a zero coupon bond is reacquired before its maturity any amount over or under the bond's book value will be listed as an extraordinary gain or loss on the income statement.

53. If a lease is capitalized, as compared to being treated as an operating lease, the effect on the current ratio and the debt/equity ratio will be:

	current ratio	<u>debt/equity ratio</u>
A.	increase	increase
B.	increase	decrease
C.	decrease	decrease
D.	decrease	increase

- 54. Cavanaugh Inc. has assets of \$310,000 and liabilities of \$150,000. There are
  - 3,000 shares of common authorized and 1,000 shares issued.
  - 5,000 shares of 10% cumulative preferred authorized and 1,000 shares issued.
  - The preferred has a par value of \$100 and a liquidation value of \$110.
  - It is year-end and Cavanaugh has not declared a dividend on the preferred or common stock.

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

- A. \$20
- B. \$30
- C. \$40
- D. \$50
- 55. An analyst contemplates using the indirect methods to create the projected statement of cash flows. She decides to research the differences between the direct and indirect methods. Which of the following statements is TRUE? Under the:
  - A. indirect method, depreciation must be added to net income, because it is a non-cash expense.
  - B. indirect method, changes in accounts receivable are already included in the net income figure.
  - C. direct method, depreciation must be added to cash collections because it is a non-cash expense.
  - D. direct method, cash flow from operations may be different than under the indirect method.
- When reporting the annual interest expense on a long term bond issued at a discount, the amount will over time.
  - A. rise
  - B fall
  - C. remain constant
  - D. can not be determined
- 57. All of the following are **true** regarding the capitalization of an operating lease **except**:
  - A. the lease liability is split between long-term debt and short-term debt.
  - B. the present value of minimum lease payments is added to property, plant, and equipment.
  - C. lease payments are discounted at the lower of the firm's borrowing rate and the interest rate implicit in the lease.
  - D. the lease payment must be split between cash from operations and cash from investing.
- 58. When a deferred tax liability account reverses it means that:
  - A. the actual tax bill is lower than the tax expense reported in the income statement.
  - B. the actual tax bill is greater than the tax expense reported in the income statement.
  - C. the actual tax bill is equal to the tax expense reported in the income statement.
  - D. cash flows increase by the amount of the reversal.

- 59. During an accounting period a firm has the following sequence of transactions:
  - Beginning inventory of 0;
  - purchases of 500 units at \$15;
  - purchases of 600 units at \$16;
  - sales of 400 units at \$18;
  - sales of 550 units at \$20

If the firm uses LIFO for inventory accounting, cost of goods sold would be:

- A. \$14,700
- B. \$14,768
- C. \$14,850
- D. \$18,200
- 60. Assuming continued inflation, a firm that uses LIFO will tend to have a \_\_\_\_ current ratio than a firm using FIFO, and the difference will tend to as time passes.
  - A. higher, increase
  - B. higher, decrease
  - C. lower, decrease
  - D. lower, increase
- 61. During period of falling prices:
  - A. LIFO income < Weighted Average income < FIFO income.
  - B. LIFO income > Weighted Average income > FIFO income.
  - C. LIFO income = Weighted Average income = FIFO income.
  - D. LIFO COGS < Weighted Average COSG > FIFO COGS
- 62. Cavanaugh Inc. uses LIFO and reports
  - cost of goods sold of \$30,000,
  - beginning inventory of \$7,500
  - ending inventory of \$8,500 and
  - EBT of \$5,000.

The beginning LIFO Reserve was \$10,000 and ending LIFO Reserve was \$13,500. The best estimate of Cavanaugh's cost of goods sold and earnings before tax on a FIFO basis would be:

- A. \$26,500, \$1,500 B. \$26,500 \$8,500 C. \$28,500 \$5,000 D. \$33,500 \$8,500
- 63. All of the following statements are *true* except:
  - A. Depreciation is the allocation of the cost of equipment to expense over the equipment's useful life.
  - B. Depletion is the allocation of the cost of extracting natural resources to inventory or expense based on the amount of those resources extracted.
  - C. The activity method of depreciation calculates depreciation expense based on the use of the asset.
  - D. When accelerated depreciation is used rather than straight line depreciation a tax savings is created that should be treated as a deferral since the savings will NOT reverse in the latter years of the asset's life.

- 64. Cavanaugh Inc.'s financial statements read:
  - Current Assets 2,000
    Debt 3,000
    Fixed Assets 3,000

• Equity 2,000

Cavanaugh sold \$500 in receivables, but a review of the footnotes to the financial statements reveals that the risk was not transferred on the sale. An analyst reviewing Cavanaugh should make all but which one of the following adjustments?

- A. Increase debt by \$500.
- B. Increase accounts receivable by \$500.
- C. Decrease equity by \$500.
- D. Add the imputed interest expense to the income account (EBIT) and the expense account (I).
- 65. The EP Corporation had cash flow from operations of \$30 million. EP reported the following:

In Millions	2000	2001
Property, Plant, and Equipment (gross)	\$100	\$110
Less accumulated depreciation	60	65
Property, Plant, and Equipment (net)	\$40	\$45

What is EP's free cash flow for the period?

- A. \$20.
- B. \$40.
- C. \$35.
- D. \$30.
- 66. An analyst has gathered the following information about a company:
  - 110,000 shares of common outstanding at the beginning of the year.
  - The company repurchases 20,000 of its own common shares on July 1.
  - Earnings are \$300,000 for the year.
  - 10,000 shares of existing 10 percent cumulative \$100 par preferred outstanding that is not in arrears at the beginning or ending of the year.
  - The company also has \$1 million in 10 percent callable bonds outstanding.
  - The company has declared a \$0.50 dividend on the common.

What is the company's diluted Earnings Per Share?

- A. \$2.73.
- B. \$2.00.
- C. \$1.40.
- D. \$2.10.

- 67. The following information is for Cavanaugh Inc.
  - Cavanaugh had 100,000 shares at the beginning of the year. Had a 10% stock dividend on April first of the year, and repurchased 20,000 on July first of the year.
  - Cavanaugh's earnings after tax for the year is \$150,000.
  - Cavanaugh paid \$20,000 in dividends on common stock and \$30,000 on preferred stock.
  - Cavanaugh had 3,000 shares of 10% cumulative preferred stock outstanding during the year.
  - Cavanaugh issued 1,000, 10% \$1,000 par value bond convertible into 55 shares each at the beginning of last year. Cavanaugh's marginal tax rate is 40%.
  - Cavanaugh has 10,000 warrants outstanding. Each warrant is convertible in to one share at \$30. Cavanaugh's average stock price was \$40 and the year-end stock price was \$25.
  - A. The weighted average number of shares in the Basic EPS calculation is 97,500.
  - B. The treasury stock method indicates that 7,500 new shares would be created through the exercise of Cavanaugh's warrants.
  - C. Cavanaugh's basic EPS is \$1.30.
  - D. Cavanaugh's diluted EPS is \$1.14.
- 68. Given that Cavanaugh Inc. has:
  - retained earnings of \$100,000,
  - 5,000 shares of common stock outstanding with a par value of \$20,
  - 1,000 shares of 10% cumulative preferred stock with a par value of \$100 and a liquidation value of \$110.
  - The preferred is 4 years in arrears.

What is Cavanaugh's book value per share of common stock?

- A. \$25.
- B. \$30.
- C. \$32.
- D. \$33.
- 69. SFAS 95 discusses the Statement of Cash Flows and requires that:
  - A. Investing Cash Flows are those flows resulting from acquisition or sale of property plant and equipment.
  - B. Financing Cash Flows are those flows resulting from the issuance or retirement of debt and equity securities and the payment of dividends.
  - C. The Statement of Cash Flows be reported according to the indirect method.
  - D. Both a and b are required.
- 70. A long term bond is sold at a discount. In subsequent years Cash Flow from Operations will be:
  - A. understated.
  - B. overstated.
  - C. properly stated.
  - D. cannot be determined from the data given.

# 71. Cavanaugh Inc. has:

- net income of \$1,000
- depreciation of \$600
- an increase of accounts receivable of \$500
- a decrease of inventory of \$400
- an increase in accounts payable of \$300, and
- a decrease in wages payable of \$200.

What is Cavanaugh's cash flow from operations?

- A. \$1,100
- B. \$1,300
- C. \$1,500
- D. \$1,600
- 72. Which of the following statements about the indirect method of calculating the Statement of Cash Flows is **false**?
  - A. No adjustment is need to account for extraordinary items because they are found above net income and are thus already accounted for.
  - B. No adjustment is needed for the payment for taxes because the tax payment is already in net income.
  - C. Depreciation is added back to net income since it is an expense not requiring cash.
  - D. No adjustment is needed to account for changes in accounts receivable since no cash was involved.

## Use the following data to answer questions 73 and 74:

Cavanaugh Inc.		Cavanaugh Inc.	
Common sized		Common size	
Income Statement		Balance Sheet	
Sales	100%	Cash	5%
COGS	65	Acc Receivable	20
Operating Exp	15	Inventory	25
Interest Exp	5	Fixed Assets	50
Income tax	5	Total Assets	100%
Net Income	<u>10</u>		
		Short term debt	20%
Sales	\$900	Long term debt	30
		Common Equity	50
		Debt + Equity	100%
		Total Assets	\$700

- 73. Based on the data given above, what is Cavanaugh's times interest earned ratio.
  - A. 20%
  - B. 4X
  - C. 5X
  - D. 10X

- 74. Based on the data given above, what is Cavanaugh's total asset turnover.
  - A. 1.00
  - B. 1.12
  - C. 1.20
  - D. 1.29
- 75. Based on DuPont analysis which of the following formulations represent ROE:
  - I. The after tax profit margin times the equity turnover.
  - II. (EAT/Sales)(Sales/Assets)(Assets/Equity).
  - III. (EBT/Sales)(Sales/Assets)(Assets/Equity)(t).
  - IV. [(EBIT/Sales)(Sales/Assets) (I/Assets)](Assets/Equity)(1 t).
  - A. II only.
  - B. I and II only.
  - C. II and III only.
  - D. I, II, and IV.

# The following 5 questions relating to corporate finance/accounting.

- 76. The cash flows from a \$1,000 capital budgeting project are:
  - year 1 \$400,
  - year 2 \$400,
  - year 3 \$300, and
  - year 4 \$300.

If the firm's cost of capital is 10%, what is the project's payback period, discounted payback period, and net present value?

A.	2.67 years	3.0 years	-\$125
В.	2.67 years	3.4 years	+\$125
C.	3.0 years	3.4 years	-\$125
D.	3.0 years	2.5 years	+\$125

- 77. Given Fixed Cost = \$15,000; Operating Cash Flow = \$10,000; variable cost per unit = \$2; and selling price per unit = \$5. What is the **break-even point**?
  - A. 5,000 units
  - B. 8,333 units
  - C. 10,000 units
  - D. 13,333 units

## 78. Cavanaugh Inc. has:

- a target debt to equity ratio of .5
- outstanding 20 year annual pay 6% coupon bonds selling for \$894
- common stock that sells for \$50 per share and is expected to grow at 8% and expected to pay a \$2 dividend.
- If Cavanaugh sells new common it must pay a 10% flotation fee.
- tax rate is 40%.

What is Cavanaugh's approximate weighted average cost of new capital?

- A. 4.2%
- B. 7.0%
- C. 9.7%
- D. 12.4%

## 79. Which of the following statements is **false**?

- A. Corporate risk takes into account how a project affects the firm's total risk while market risk takes into account how a project affects the firm's beta risk.
- B. Sensitivity analysis looks at how sensitive the dependent variable is to given changes in the independent variable. Scenario analysis looks at the dependent variable's sensitivity to changes in the independent variable and the probable range of values the independent variable may take.
- C. In measuring a project's beta risk the accounting method averages the betas of single product firms similar to the project under study, while the pure-play method regresses the project's returns against the market's returns.
- D. The optimal capital budget is determined by plotting the firm's investment opportunity schedule against the firm's marginal cost of capital schedule.

#### 80. Which of the following statements are **false**?

- A. Based on signaling theory, if a firm issues new common stock it means that the firm thinks future investment prospects are better than normal.
- B. In a world with taxes and bankruptcy costs one would expect there to be an optimal capital structure where the cost of capital is minimized and share price is maximized.
- C. In a perfect no tax world, M&M would tell you that the firm's WACC is constant and the firm's capital structure does not influence the firm's stock price.
- D. In an M&M world with taxes, but no bankruptcy cost, you would expect to see firms with 100% debt financing.

#### The following 30 questions relate to Asset Valuation.

- 81. There are two stocks in an index:
  - Company A has 50 shares valued at \$2 each.
  - Company B has 10 shares valued at \$10 each.
  - When the index started the price weighted index calculated out to \$6, and the value-weighted index was 1.

Nothing has changed except now the price of Company A's stock is selling for \$4 per share. What is the price-weighted index and what is the value-weighted index?

- A. Price-weighted = 8; Value-weighted = 2.00
- B. Price-weighted = 10; Value-weighted = 1.25
- C. Price-weighted = 7; Value-weighted = 1.50
- D. Price-weighted = 6; Value-weighted = 0.95
- 82. An investor buys 200 shares of ABC at the market price of \$100 on full margin. The initial margin requirement is 40 percent and the maintenance margin requirement is 25 percent.

What is the leverage factor of the margin purchase?

- A. 2.50.
- B. 0.40.
- C. 0.60.
- D. 4.00.
- 83. Which of the following regarding bond market indexes is FALSE?
  - A. Unlike stocks, bonds lack continuous price trading data.
  - B. The bond universe is more stable than the stock universe.
  - C. There are more bond issues than stocks.
  - D. The price volatility of bonds is constantly changing due to the influence of maturity and market yield on bond durations.
- 84. The implications of stock market efficiency for fundamental analysis indicates that using the top-down approach to analyze a firm will yield:
  - A. superior returns using past and current information.
  - B. superior returns compared to a randomly selected buy-and-hold portfolio of stocks.
  - C. returns that are not superior if the analysis only looks at past and current information.
  - D. superior returns using only past information.
- 85. Market efficiency is NOT based on which of the following assumptions?
  - A. A large number of profit maximizing participants are analyzing securities independently.
  - B. All of these choices are correct.
  - C. Market participants always correctly adjust prices when new information is received.
  - D. The expected returns implicitly include risk in the price of a security.

86. An investor buys 200 shares of ABC at the market price of \$100 on full margin. The initial margin requirement is 40 percent and the maintenance margin requirement is 25 percent.

If the shares of stock later sold for \$200 per share, what is the rate of return on the margin transaction?

- A. 400%.
- B. 100%.
- C. 200%.
- D. 500%.
- 87. All of the following statements are *true* about futures and options clearinghouses **except**:
  - A. The clearinghouse acts as the opposite side of all trades once they are initiated.
  - B. The clearinghouse guarantees that traders in the futures market will honor their obligations.
  - C. The clearinghouse requires the daily settlement of all margin accounts.
  - D. Clearinghouses have defaulted on less than one half of one percent of their trades.
- 88. Which of the following statements about margin is **false**?
  - A. The initial margin must be posted within three days of the trade.
  - B. Each trader's margin account is marked-to-market at the end of every day to reflect any gains and losses they have experienced for that day.
  - C. If the margin account balance falls below the maintenance margin level, the trader must bring it back up to the initial margin level.
  - D. The initial margin on a contract approximately equals the maximum daily price fluctuation of the contract.
- 89. Which one of the following statements is **true**?
  - A. When the stock price is above the strike price, a put option is in-the-money.
  - B. When the stock price is below the strike price, a call option is in-the-money.
  - C. When the stock price is above the strike price, a put option is out-of-the-money.
  - D. When the stock price is below the strike price, a call option is at-the-money.
- 90. Which of the following statements about put options is **false**?
  - A. The most the buyer of a put can lose is the premium.
  - B. The most the buyer can gain is unlimited.
  - C. The most the writer can lose is the stock's price less the premium.
  - D. The most the writer can gain is the put's premium.
- 91. Which of the following statements about call options at expiration are **true**?
  - A. The call buyer's maximum loss is the call option's premium.
  - B. The profit potential to the buyer of the option is unlimited.
  - C. The potential loss to the writer of the call option is unlimited.
  - D. The greatest profit the writer of a call option can make is the stock price minus the premium.
- 92. Which of the following statements about interest rate swaps is **false**?
  - A. The parties agreeing to swap cash flows are call the **counterparties**.
  - B. Swap facilitators are the people who bring the counterparties together.
  - C. A plain vanilla interest rate swap is a fixed rate for variable rate swap. The variable rate is usually set at LIBOR flat. The period of time involved in the swap is called the **tenor**.
  - D. Notional principal is exchanged at initiation and termination while only net interest rate payments are exchanged on the settlement dates.

- 93. You are analyzing a firm that has:
  - a historical earnings retention rate of 40% that is projected to continue into the future,
  - a sustainable ROE of 12%,
  - the stock's beta is 1.2,
  - the nominal risk free rate is 6%, and
  - the expected market return is 11%.

If you think next year's earnings will be \$4 per share, what value would you place on this stock?

- A. \$22.24
- B. \$26.67
- C. \$33.32
- D. \$45.45
- 94. Cavanaugh's stock will start paying a \$2 per share dividend four years from today (D4). Analysts are estimating at that time Cavanaugh's dividend growth rate will stabilize at 7%. If investors want to earn 12% on investments of this type, what value would they put on Cavanaugh shares today?
  - A. \$28.47.
  - B. \$31.89.
  - C. \$40.00.
  - D. \$50.18.
- 95. Using time series analysis you project that the Widget Index's sales per share will be \$1,000. You also project that:
  - Widget EBDIT profit margin will be 15%,
  - The industry depreciation per share will be \$50, and
  - That the interest expense will be \$30.
  - The Widget industry's average tax rate is 30%.

Assuming a P/E ratio of 10X, project the Widget Index's value at year-end?

- A. \$250
- B. \$325
- C. \$432
- D. \$490
- 96. Assuming all other factors remain unchanged, which one of the following would reduce the market P/E ratio?
  - A. The market ROE is expected to increase.
  - B. The dividend payout ratio increases.
  - C. The dividend growth rate increases.
  - D. The required rate of return increases.

- 97. Which of the following statements is **false**?
  - A. The price to book value ratio is seldom greater than one for industrial firms. This is caused by the fact that due to accounting rules book value will exceed market value in most firms.
  - B. Since cash flows are more stable than earnings the price to cash flow ratio should be used in conjunction with the P/E ratio.
  - C. Economic value added (EVA) is a present value technique used to measure management's ability over time to add value to the firm through their investment decisions.
  - D. Market Value Added equals the market value of the firm's capital minus the adjusted book value of the firm's capital.
- 98. When the relative strength ratio, the stock's price divided by the index's prices, is increasing this means the stock is:
  - A. doing worse than the index.
  - B. doing the same as the index.
  - C. doing better than the index.
  - D. tracking the index.
- 99. Weak form efficiency states that excess risk adjusted returns cannot be obtained by using:
  - A. insider information
  - B. technical analysis
  - C. fundamental analysis
  - D. portfolio theory
- 100. If a bond sells at a discount:
  - A. its YTM will exceed its horizon yield.
  - B. its current yield is greater than its YTM.
  - C. its coupon rate is greater than its current yield.
  - D. its coupon rate is less than the market rate of interest.
- 101. You have a 3-year investment horizon. You can buy a 10% semi annual coupon, 10 year bond for \$1,000. You estimate you can reinvest the coupons at 12% and sell the bond in 3 years time for \$1,050. Based on this information, what is your horizon return?
  - A. 9.5%
  - B. 10.0%
  - C. 11.5%
  - D. 13.5%
- 102. Consider a bond that pays an annual coupon of 5 percent and that has three years remaining until maturity. Assume the term structure of interest rates is flat at 6 percent. How much does the bond price change over the next twelve-month interval if the term structure of interest rates does not change?
  - A. 0.84.
  - B. -0.84.
  - C. -0.56.
  - D. 0.00.

- 103. A bond has a modified duration of 6 and a convexity of 62.5. What happens to the bond's price if interest rates rise 25 basis points?
  - A. it goes up 1.46%
  - B. it goes down 1.46%
  - C. it goes up 4%
  - D. it goes down 15%
- 104. Which theory about the term structure of interest rates is correct?
  - A. The expectations hypothesis indicates that investors have varying opinions about future interest rates.
  - B. The liquidity premium hypothesis assumes investors will give up yield to lock in longer-term interest rates.
  - C. That the segmented markets hypothesis contends that borrowers and lenders prefer particular segments of the yield curve.
  - D. The expectations hypothesis contends that the long-term rate is equal to the expected short-term rate.
- 105. You have a 1 year, 10% semi annual coupon bond with a price of \$975. If the 6 month T-Bill rate is 6%, what is the one year theoretical spot rate?
  - A. 7.4%
  - B. 8.7%
  - C. 9.9%
  - D. 12.8%
- 106. The six-year spot rate is 7% and the five-year spot rate is 6%. What is the implied one-year zero-coupon bond rate five years from now?
  - A. 5%
  - B. 6.5%
  - C. 7%
  - D. 12%
- 107. Which of the following definitions about appraisal is **false**?
  - A. The cost approach to valuation is based on what it would cost to rebuild the property at today's prices.
  - B. The comparative sales approach to valuation is based on the sales price of properties that are similar to the subject property.
  - C. The income approach to valuation projects the property's value as the present value of its future annual after-tax net operating income.
  - D. The 'capitalization rate' equals the required rate of return minus the growth rate.
- David Bateman is contemplating the purchase of a shopping center. The average annual after tax cash flow for the next ten years is expected to be \$30,000. The property cost \$750,000. Bateman will put down 25 percent and borrow the rest. In ten years, the property will be sold netting \$350,000 after taxes. What is the approximate yield on the shopping center?
  - A. 21.35.
  - B. 17.2%.
  - C. 12.3%.
  - D. 14.8%.

- 109. Which of the following statements about investment companies is **false**?
  - A. The 12b-1 plan allows funds to deduct up to 1.25% of average assets per year to cover marketing expenses.
  - B. Closed end investment companies trade at the net asset value of the shares.
  - C. The fund's net asset value is the prevailing market value of all the fund's assets divided by the number of fund shares outstanding.
  - D. The typical management fees charged to compensate the Management Company for the expense of running the fund are between ¼ and 1% of the fund's net asset value.
- 110. Leveraged buyout financing is used by management to:
  - A. take a private firm public.
  - B. buy additional product lines.
  - C. develop new lines to revitalize the firm.
  - D. take a public firm private.

## The following 10 questions relate to portfolio theory and management.

- When assets in a defined-benefit plan are worth less than the present value of the promised benefits, the fund is considered to be:
  - A. underfunded.
  - B. unfunded.
  - C. overfunded.
  - D. fully funded.
- 112. You currently own Cavanaugh Inc. and are thinking of adding either Coe Co. or Firm Co. to your holdings. All three stocks offer the same expected return and total risk. The covariance of returns between Cavanaugh and Coe is +0.5 and the covariance between Cavanaugh and Firm Co. is –0.5. Portfolio's risk would:
  - A. decline more if you bought Coe Co.
  - B. decline more if you bought Firm Co.
  - C. decrease if you bought Coe Co. but increase if you bought Firm Co.
  - D. would decrease most if you put half your money in Coe Co. and half in Firm Co.
- 113. The covariance of the market's returns with the stock's returns is .008. The standard deviation of the market's returns is .1 and the standard deviation of the stock's returns is .2. What is the correlation coefficient between the stock and market returns?
  - A. .4
  - B. .91
  - C. 1.0
  - D. 1.25
- 114. Cavanaugh Inc. has a beta of 1.2. Next year you project the market will earn 12% and the risk free rate will be 5%. If you buy Cavanaugh you project your return will be 13%. Thus you think:
  - A. Cavanaugh will underperformed the market on a risk-adjusted basis.
  - B. Cavanaugh's performance will just matched the market return on a risk-adjusted basis.
  - C. Cavanaugh will outperform the market on a risk-adjusted basis.
  - D. Cavanaugh's performance has nothing to do with the market return.

- 115. A(n) \_\_\_\_\_ return requirements must be balanced between the need for current income and the need for the long-term protection of capital.
  - A. pension fund's
  - B. life insurance company's
  - C. endowment fund's
  - D. investment company's
- 116. Which of the following statements about portfolio theory is **false**:
  - A. Total risk equals systematic risk plus unsystematic risk.
  - B. If a security plots above the SML it is undervalued.
  - C. The risk measure associated with the CML is standard deviation (total risk).
  - D. If a security plots above the theoretical CML it is undervalued.
- 117. Each of the following statements regarding the optimal portfolio is true except:
  - A. is the efficient portfolio that has the highest utility for a given investor.
  - B. lies at the point of tangency between the efficient frontier and the investor's indifference curve.
  - C. is the portfolio that gives the investor the maximum level of return.
  - D. will be fully diversified.
- 118. Which one of the following statements about portfolio diversification is **false**?
  - A. As more securities are added to a portfolio total risk falls, but at a decreasing rate.
  - B. In a well diversified portfolio of over 25 stocks market risk will account for over 85% of the portfolio's total risk.
  - C. The lower the correlation coefficient between the portfolio and a stock, the **lower** the diversification effect from adding that stock to the portfolio.
  - D. International diversification can further reduce the total risk of a portfolio.
- 119. An investor has two stocks, Stock A and Stock B in her portfolio. What is the variance of the portfolio given the following information about the two stocks?
  - $\sigma_A = 20\%$
  - $\sigma_{\rm B} = 15\%$
  - $cov_{A,B} = .0032$
  - $W_A = 70\%$
  - $W_B = 30\%$
  - A. .1472.
  - B. .1832.
  - C. .0217.
  - D. .0096.
- 120. You combine three assets (A, B, and C) into a portfolio. What is the expected return and standard deviation of the portfolio? You will put 25% of your funds into Asset A with an expected return of 5% and a standard deviation of zero, 50% of your funds into Asset B with an expected return of 10% and a standard deviation of 5%, and 25% of your funds into Asset C with an expected return of 5% with a standard deviation of zero.
  - A. .075 .025
  - B. .025 .05
  - C. .075 .075
  - D. .05 .10