

## 2007 December CFA Level 1 – Sample Exam 4 Questions

### SS1-Ethics and Professional Standards

Q5. Guillermo Sandoval, CFA owns an asset management firm with offices downtown. To minimize rent expenses, each year Sandoval ships the previous year's research records to a nearby warehouse. There, the reports are digitized and stored in both electronic and hard-copy forms. After five years, all paper copies are destroyed and only electronic copies are retained. Are Sandoval's record-retention procedures in compliance with the CFA Institute Standards of Practice?

- A. Yes
- B. No, because he did not retain the copies in his offices.
- C. No, because he failed to retain the original documents.
- D. No, because he did not retain hard copies for a minimum of seven years.

Q6. Roberto Vargas, CFA is in charge of the compliance program at his investment firm. According to the Standards of Practice Handbook, as a supervisor, Vargas should least likely perform which of the following activities?

- A. Respond promptly to all violations
- B. Disseminate the contents of the program to all personnel
- C. Periodically update the procedures to ensure that the measures are adequate under the law.
- D. Incorporate a professional conduct evaluation as part of an employee's performance review.

Q7. Elizabeth Stargate, CFA, supervises eight junior analysts at Spartan Financial Services. Stargate suspects that one of the analysts is violating Spartan's personal investing policy. According to the Standards of Practice Handbook, Stargate's most appropriate initial action is to.

- A. initiate an investigation.
- B. notify her supervisor of the analyst's suspected misconduct.
- C. require the analyst to liquidate and close all personal accounts.
- D. evaluate Spartan's personal investing policy to determine whether the policy is reasonable.

### SS2/3-Quantitative Methods

Q11. To evaluate excess return per unit of risk for different portfolios, the most appropriate measure is:

- A. variance.
- B. the Sharpe ratio

- C. standard deviation
- D. Chebyshev's inequality

Q12. If no other estimator of a given parameter has a sampling distribution with a smaller variance, the estimator used is best characterized as:

- A. accurate
- B. efficient
- C. unbiased
- D. consistent

Q13. An analyst adjusts the historical probability of default for high-yield bonds to reflect her perceptions of changes in the quality of high-yield bonds. The analyst is best characterized as obtaining a (n):

- A. a priori probability
- B. objective probability
- C. empirical probability
- D. subjective probability

Q14. An economist predicts that over the next year, there is a 60 percent probability that oil prices will fall slightly and a 20 percent probability that new estate tax legislation will be enacted. According to this prediction, the probability that at least one of these independent events will occur is closest to:

- A. 12%
- B. 40%
- C. 68%
- D. 80%

Q16. An investor plans to retire eight years from today. To maintain her standard of living through retirement, she needs to have \$2.5 million accumulated when she retires. Her portfolio is currently valued at \$1.2 million and is expected to earn 7.0 percent annually. The minimum annual amount she must save at the beginning of each of the next eight years to achieve a retirement accumulation of \$2.5 million is closest to:

- A. \$0
- B. \$31,875
- C. \$39,914
- D. \$42,708

#### **SS4/5/6-Economics**

Q19. The short-run effects of unanticipated expansionary monetary policy are most likely to include.:

- A. a decrease in the inflation rate
- B. a decrease in the real interest rate
- C. a decrease in real output and employment
- D. an increase in short-term money interest rates.

Q20. At low wage rates, will an increase in the wage rate most likely result in:

|   | The substitution effect? | An increase in the supply of labor? |
|---|--------------------------|-------------------------------------|
| A | No                       | No                                  |
| B | No                       | Yes                                 |
| C | Yes                      | No                                  |
| D | Yes                      | Yes                                 |

### SS7/8/9/10-Financial Statement Analysis

Q24. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

An analyst gathered the following information about a company:

|                       |             |
|-----------------------|-------------|
| Net profit margin     | 4%          |
| Shareholders' equity  | \$1,000,000 |
| Dividend payout ratio | 35%         |
| Total assets          | \$2,500,000 |
| Net income            | \$200,000   |

The company's potential (sustainable) growth rate is closest to:

- A. 2.6%
- B. 7.0%
- C. 13.0%
- D. 14.0%

Q25. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

An analyst gathered the following information about a company and the company's industry:

|               | Company | Industry |
|---------------|---------|----------|
| Current ratio | 1.6     | 1.6      |
| Quick ratio   | 0.3     | 0.9      |
| Cash ratio    | 0.2     | 0.2      |

After preparing common-size balance sheets for the company and the industry, the analyst noted that the company and the industry both have the same proportion of current liabilities, long-term liabilities, and shareholders' equity. Would the common-size balance sheets for the company or the industry most likely have a higher percentage associated with inventory and accounts receivable, respectively?

|   | Higher percentage associated with inventory | Higher percentage associated with accounts receivable |
|---|---|---|
| A | Industry                                    | Industry  |
| B | Industry                                    | Company   |
| C | Company                                     | Industry  |
| D | Company                                     | Company   |

Q26. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

An analyst is preparing common-size financial statements for each of five companies in the same industry during the same period. The most appropriate way of expressing the ending inventory for each company is as a percentage of

- A. total assets for the industry.
- B. total assets for that company.
- C. Current assets for the industry
- D. Current assets for that company

Q27. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

Which of the following best describes the reason for recording depreciation on a long-term asset?

- A. To match the cost of the asset to its physical life.
- B. To value the asset at market value on the balance sheet.
- C. To record the cost of the asset as an expense until it becomes obsolete.
- D. To allocate the cost of the asset to the periods that benefit from its use.

Q28. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

Which of the following factors is *least likely* to influence international diversity in accounting practices?

- A. Taxation
- B. Legal system.
- C. Providers of financing
- D. Relationship between standard setters and securities regulators.

Q29. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

An analyst has calculated the following ratios from a company's financial statements:

| Year ended 31 December | 2003  | 2004  |
|------------------------|-------|-------|
| Return on Equity       | 16.8% | 18.0% |
| Return on Total Assets | 10.5% | 10.0% |
| Net Profit Margin      | 4.2%  | 4.0%  |

Based on the information above, during 2004, did the company experience an increase in the:

|   | Financial leverage ratio? | Asset turnover ratio? |
|---|---------------------------|-----------------------|
| A | No                        | No                    |
| B | No                        | Yes                   |
| C | Yes                       | No                    |
| D | Yes                       | Yes                   |

Q30. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

Compared to expensing the costs of long-lived assets, would capitalizing the costs increase the firm's:

|   | Debt-to-equity ratio? | Cash flow from operations? |
|---|-----------------------|----------------------------|
| A | No                    | No                         |
| B | No                    | Yes                        |
| C | Yes                   | No                         |
| D | Yes                   | Yes                        |

Q31. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

Which one of the following items would most likely result in a permanent difference between pretax financial income and taxable income?

- A. Tax Credit
- B. Warranty expense.
- C. Depreciation expense.
- D. Interest income on corporate bonds

Q32 Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted. With respect to bonds sold at a premium by the issuing company, which of the following statements best characterizes the company's total interest expense and cash flow from operations (CFO)? Over the life of the bonds prior to the maturity date, total interest expense is:

- A. less than total coupon payments, and CFO is overstated.
- B. less than total coupon payments, and CFO is understated
- C. greater than total coupon payments, and CFO is overstated
- D. greater than total coupon payments, and CFO is understated.

Q33. Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted.

A lessee entered into a five-year lease on 1 January 2004. With respect to this lease only, capitalizing the lease, instead of classifying the lease as operating, will most likely cause the company's 2008 cash flow from operations and return on equity, respectively to be:

|   | Cash flow from operations | Return on equity |
|---|---------------------------|------------------|
| A | Lower                     | Lower            |

|   |        |        |
|---|--------|--------|
| B | Lower  | Higher |
| C | Higher | Lower  |
| D | Higher | Higher |

Q34 Assume U.S.GAAP (generally accepted accounting principles) applies unless otherwise noted. Compared to the FIFO method of inventory accounting, during periods of rapidly rising prices and increasing inventory quantities, the use of LIFO will most likely result in higher:

- A. cash flows
- B. income taxes
- C. working capital
- D. inventory balances.

### SS11-Corporate Finance

Q35. All else equal, the operating leverage of a firm is most likely to increase if there is:

- A. a decrease in the fixed costs.
- B. an increase in the fixed costs.
- C. a decrease in the fixed costs with a proportional decrease in variable costs.
- D. an increase in the fixed costs with a proportional increase in variable costs.

Q36. Given a project with normal cash flows, the point at which the net present value profile intersects the vertical axis is most likely to be the:

- A. internal rate of return of the project.
- B. net present value of the project at a discount rate of zero.
- C. decision criteria for whether to accept or reject the project
- D. discount rate at which the net present value of the project is zero.

Q38. Which one of the following factors is least likely to affect a company's dividend payout policy decision?

- A. Tax rate of the corporation.
- B. The flotation cost on new issues of equity.
- C. Shareholder preference for income versus capital gains.
- D. The signaling effect that changes in dividend policy convey.

### SS13/14-Equity Investments

Q40. In industries characterized by unequal market shares, is a decreasing Herfindahl index most likely to be associated with an increase or decrease in the:

|  |   |  |
|--|---|--|
|  | Equivalent number of firms in the industry? | Competitive pressures in the industry? |
|--|---|--|

|   |          |          |
|---|----------|----------|
| A | Increase | Increase |
| B | Increase | Decrease |
| C | Decrease | Increase |
| D | Decrease | Decrease |

Q41. All else equal, will a decrease in the expected rate of inflation result in a decrease in the :

|    | Real risk-free rate of return? | Nominal risk-free rate of return? |
|----|--------------------------------|-----------------------------------|
| A. | No                             | No                                |
| B  | No                             | Yes                               |
| C  | Yes                            | No                                |
| D  | Yes                            | Yes                               |

Q42. An investor opens a margin account with an initial deposit of \$5,000. He then purchases 200 shares of PRK stock at \$46 in his margin account, which has a margin maintenance requirement of 25 percent. Ignoring commissions and interest, the minimum price that PRK stock can fall to before the investor receives a margin call is closest to:

- A. \$16.80
- B. \$20.00
- C. \$28.00
- D. \$33.33

Q43. Davis Company, Inc. (DCI) earned \$5 a share last year and paid dividend of \$2 a share. The company is expected to grow by 8 percent annually and continue its payout ratio for the foreseeable future. An investor with an 11 percent required return expects to sell the stock at \$75 two years from now. The maximum amount that an investor should be willing to pay for DCI stock today is closest to:

- A. \$58.68
- B. \$64.71
- C. \$66.67
- D. \$70.47

Q44. An analyst gathered the following information from a company's most recent financial statements (U.S. \$ in millions):

|   |           |
|---|-----------|
| Preferred stock                           | 40        |
| Common stock                              | 120       |
| Additional paid-in capital                | 30        |
| Retained earnings                         | 190       |
| Treasury stock                            | (55)      |
| Total shareholders equity                 | 325       |
| Total number of common shares outstanding | 10million |
| Tax rate                                  | 40%       |

The analyst also determined that the company uses the LIFO inventory method, but most

companies in the industry use the FIFO method. The footnotes to the financial statements indicate that if the company had used the FIFO method, the inventory balance would have been \$45 million higher than the amount reported on the company's most recent financial statements. If the company's common stock is currently selling for \$59 per share, the most appropriate price to book value ratio to use in valuing the company is:

- A. 1.59
- B. 1.68
- C. 1.79
- D. 1.89

Q45. Which of the following technical trading rules is most likely to provide a bearish (sell) signal to a technical analyst?

- A. An increase in the stock price on a heavy trading volume.
- B. A decrease in the spread between T-Bill and Eurodollar rates.
- C. A relatively low Chicago Board Options Exchange (CBOE) put-call ratio.
- D. A 50-day moving average of past stock prices above the 200-day moving average line.

### SS17-Derivative Investments

Q46. An investor buys a stock at \$90 and also buys a put option on the stock with a put price of \$4 and having an exercise price of \$80. At expiration of the put option, the stock price has fallen to \$60. The loss for the investor's position would be:

- A. \$6
- B. \$14
- C. \$16
- D. \$24

Q47. What is the most likely effect of an increase in volatility on the price of a:

|   | Call option? | Put option? |
|---|--------------|-------------|
| A | Increase     | Increase    |
| B | Increase     | Decrease    |
| C | Decrease     | Increase    |
| D | Decrease     | Decrease    |

Q48 The following information relates to an investor's positioning the futures market:

|   |       |
|---|-------|
| Initial futures price per contract on Day 0 | \$100 |
| Initial margin requirement per contract     | \$5   |
| Maintenance margin requirement per contract | \$3   |
| Number of contracts held by the investor    | 10    |
| Position taken by the investor              | Long  |
| Settlement price per contract on Day 1      | \$97  |



If the investor deposited enough funds to just meet the initial margin requirement, the amount of funds that the investor would be required to deposit on Day 2 is closest to:

- A. \$0
- B. \$10
- C. \$30
- D. \$50

### SS15/16-Fixed Income Investments

Q53. Do measures that take into account how the expected cash flows from a bond may change as yields change includes:

|    | Modified duration? | Modified convexity? |
|----|--------------------|---------------------|
| A. | No                 | No                  |
| B  | No                 | Yes                 |
| C  | Yes                | No                  |
| D  | Yes                | Yes                 |

Q54. An analyst gathered the following information about a bond:

|   |         |
|---|---------|
| Par value                               | \$1,000 |
| Coupon (annual rate, paid semiannually) | 10%     |
| Current price                           | \$960   |
| Time to maturity                        | 8 years |
| Time to first call                      | 3 years |
| Call price                              | \$1,050 |

The bond's yield to call is closest to:

- A. 6.6%
- B. 10.8%
- C. 11.6%
- D. 13.1%

Q55. Which of the following statements about option-adjusted spread and nominal spread is most accurate?

- A. Option-adjusted spread will equal nominal spread if the option favors the investor.
- B. Option-adjusted spread will be greater than nominal spread if the option favors the issuer.
- C. The longer the deferred call period, the closer the value of the option-adjusted spread will be to the value of the nominal spread.
- D. The difference between option-adjusted spread and nominal spread is zero for mortgage-backed securities because mortgage-backed securities do not contain embedded options.

Q56. For an option-free bond, if yields increase by 200 basis points, the parts of the total estimated

percentage price change attributable to duration and the convexity adjustment, respectively, will most likely be:

|    | Part of the total estimated percentage price change attributable to duration | Part of the total estimated percentage price change attributable to the convexity adjustment |
|----|--|--|
| A. | Positive   | Positive   |
| B. | Positive   | Negative   |
| C. | Negative   | Positive   |
| D. | Negative   | Negative   |

Q57. An analyst gathered the following information on spot rates (bond equivalent yield or BEY) for Treasury securities with varying maturities.

| Years to Maturity | Spot Rates (BEY)% |
|-------------------|-------------------|
| 0.5               | 4.15              |
| 1.0               | 4.45              |
| 1.5               | 4.66              |
| 2.0               | 5.07              |
| 2.5               | 5.59              |
| 3.0               | 5.90              |

The 2 year forward rate 1 year from now, on a BEY basis, is closest to

- A. 2.37%
- B. 3.31%
- C. 4.75%
- D. 6.63%

## SS12-Portfolio Management

Q58. With respect to the security market line, if two risky assets have the same covariance with the market portfolio but have different estimated rates of return, the most accurate conclusion is that the two risky assets have:

- A. the same amount of systematic risk, and both assets are properly valued.
- B. different amount of systematic risk, and both assets are properly valued.
- C. the same amount of systematic risk, and at least one of the assets is either overvalued or undervalued
- D. different amounts of systematic risk, and at least one of the assets is either overvalued or undervalued.

Q59. Compared to investors with long investment time horizons, investors with short investment time horizons most likely require:

- A. less liquidity and less emphasis on capital appreciation.
- B. more liquidity and less emphasis on capital appreciation.
- C. less liquidity and greater emphasis on capital appreciation

D. more liquidity and greater emphasis on capital appreciation.

Q60. Using the Markowitz model, calculation of the portfolio standard deviation does not require the:

- A. expected rate of return on the market portfolio.
- B. variance of each individual asset in the portfolio
- C. covariances between returns for all assets included in the portfolio
- D. weight of each individual asset in the portfolio, where the weight is determined by the proportion portfolio value.