2009 Sample Exam 3 Answers

1. Correct Answer=C

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to situations involving issues of professional integrity.

When making investments in new offerings or secondary financings, members should ensure the pro rata distribution of the issues to all customers for whom the investment is appropriate, notwithstanding that the member may have discretionary power over certain accounts and not over others.

Additionally, disclosure of inequitable allocation methods does not relieve a member from this obligation.

2. Correct Answer=A

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to situations involving issues of professional integrity.

Although departing employees may not take employer property when departing, the model Piedmont presented to his new employer was not Branch's property. It was created by Piedmont prior to his employment with Branch. The model wan not created for Branch in the course of his employment, but was adopted by Branch.

3. Correct Answer=A

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to situations involving issues of professional integrity.

Members are in compliance with CFA Institute's Standards if they rely on the research of another party who exercised diligence and thoroughness.

4. Correct Answer = A

Study session 1-3-c

Explain the requirements for verification of compliance with GIPS standards.

Verification procedures include a) definition of the firm; b) composite construction; c) nondiscretionary accounts; d) sample account selection; e) account review; f) performance measurement calculation; g) disclosures; and h) maintenance of records. Calculation methodology and presentation and reporting are provisions of the global investment performance standards (GIPS), not the verification process.

5. Correct Answer=B

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to situations involving issues of professional integrity.

By establishing a hedge fund separate from AA, Grabbo violated several Standards. The hedge fund may conflict with her employer's interests and must be disclosed according to Standard VI (A) Disclosure of Conflicts. The hedge fund also provides additional compensation and must be disclosed according to Standard IV (B), Additional Compensation Arrangements. In setting up the new fund, Grabbo was not acting for the benefit of her employer. She should have informed AA that she wanted to organize a hedge fund and come to some mutual agreement on how this would occur.

6. Correct Answer=B

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to situations involving issues of professional integrity.

Members should not engage in conduct involving dishonesty, fraud, deceit, or misrepresentation. The candidate's dishonesty is not addressed in the Standard relating to Duty to Employer, however. As he has registered to take the exam in the next year, he still qualifies to state he is a candidate.

7. Correct Answer=C

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to situations involving issues of professional integrity.

No designation exists for someone who has passed Level I, Level II, or Level III of the CFA exam. Persons who have passed a certain level of the exam may state that they have completed that level. A person can state he is a candidate only if he is currently enrolled in the CFA program.

8. Correct Answer=A

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to situations involving issues of professional integrity.

Photocopying copyrighted material is a violation of the CFA Institute Standards. Candidates and members must comply with laws and must not knowingly participate or assist in a violation of laws.

9. Current Answer=B

Study Session 1-2-a

Demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional

Conduct by applying the Code and Standards to situations involving issues of professional integrity.

Members should act with integrity, dignity, and in an ethical and professional manner; any individual behavior that reflects adversely on the profession should be avoided. Bennett's actions violated the Standard relating to professionalism but not the Standard relating to Integrity of Capital Markets.

10. Correct Answer = B

Study session 2-7-d

Define, calculate, and interpret measures of central tendency, including the population mean, sample mean, arithmetic mean, weighted average or mean (including a portfolio return viewed as a weighted mean), geometric mean, harmonic mean, median, and mode. The geometric mean return is calculated as the nth root of the product of n terms, where the terms are one plus the returns and n is the number of returns. After taking the nth root, subtract one (refer to Equation 7-6). In this case,

$([1+2.2\%]\times[1+6.2\%]x......[1+15.3\%]\times[1+18.4\%])^{0.10} - 1 = 10.8.\%$

The least appropriate conclusion for King to make with respect to the effect of the equity method of accounting is that.

11. Correct Answer: C

Study Session 2-6-c

Calculate, interpret, and distinguish between the money-weighted and time-weighted rates of return of a portfolio and appraise the performance of portfolio based on these measures.

The time-weighted rate of return is calculated by computing the quarterly holding period returns and linking those returns into an annual return. In this case, the quarterly holding periods are 2.4 / 2.2 = 1.0909; 2.6 / 2.8 = 0.9286; 3.2 / 2.4 = 1.3333; and 4.1 / 4.2 = 0.9762. The time-weighted return is thus $(1.0909\times0.9286\times1.3333\times0.9762)$ -1 = 1.3185 -1 = 0.3185 or 31.85%.

12. Correct Answer=C

Study Session 3-9-i

Define shortfall risk, calculate the safety-first ratio, and select an optimal portfolio using Roy's safety-first criterion.

The investor requires a minimum return of $40,000 / $700,000 or $5.71 percent. Roy's safety-first model uses the excess of each portfolio's expected return over the minimum return and divides that excess by the standard deviation for that portfolio. The highest safety-first ratio is associated with Portfolio 3: (14% - 5.71%) / 22% = 0.3768.

13. Correct Answer=C

Study Session 3-10-b

Distinguish between simple random and stratified random sampling.

In stratified sampling, one divides the sample into subpopulations and randomly samples from within the subpopulations.

14. Correct Answer=A
Study Session 2-7-h
Define, calculate, and interpret the coefficient of variation and the Sharpe ratio.
The coefficient of variation is defined as the standard deviation of the portfolio (a measure of risk) divided by the mean return on the portfolio (i.e., risk per unit of mean return).

15. Correct Answer=B
Study Session 3-11-a, c
Define a hypothesis, describe the steps of hypothesis testing, interpret and discuss the choice of the null hypothesis and alternative hypothesis, and distinguish between one-tailed and tow-tailed tests of hypotheses;
Define and interpret a decision rule and the power of a test, and explain the relation between confidence intervals and hypothesis tests.
Because the alternative hypothesis is that the correlation is different from zero (either above or below zero), the analyst conducted a two-tailed test. Because the test statistics is greater than either of the critical values, the analyst can reject the null hypothesis.

16. Correct Answer=C
Study Session 3-10-e
Calculate and interpret the standard error of the sample mean.
The standard error of the sample mean is equal to the population standard deviation divided by the square root of the number of companies in the sample. $4,200,000 / 7 = $600,000.

17. Correct Answer = C
Study session 6-25-d
Explain the impact of inflation on unemployment, and describe the short-run and long-run Phillips curve, including the effect of changes in the natural rate of unemployment.
The difference between actual and expected rates of inflation influences unemployment. When inflation falls below its expected rate, unemployment rises above the natural rate.

18. Correct Answer = A
Study session 5-19-c
Explain price discrimination, and why perfect price discrimination is efficient.
Monopolist sharing the total surplus with consumers is the least likely outcome. In a monopoly, perfect price discrimination results in the total surplus being kept by the producer, the monopolist.

19. Correct Answer = B
Study session 4-15-c
Explain the impact of taxes on supply, demand, and market equilibrium, and describe tax incidence and its relation to demand and supply elasticity.

When supply is perfectly elastic (horizontal supply curve) the price increases by the amount of tax and the seller passes on the entire tax burden to the buyer.

20. Correct Answer=C

Study session 5-23-d

Compare and contrast the classical, Keynesian and monetarist schools of macroeconomics.

The new Keynesian view holds that the money wage rates as well as the prices of goods and services are sticky.

21. Correct Answer = A

Study session 4-16-a

Explain the types of opportunity cost and their relation to economic profit, and calculate economic profit.

Explicit costs involve payments by a company to purchase productive resources and they are also included in the firm's accounting costs.

22. Correct Answer = A

Study session 5-19-e

Explain the potential gains from monopoly and the regulation of a natural monopoly.

The marginal cost pricing rule sets price equal to marginal cost. Although it maximizes the total surplus, it is all consumer surplus. It is efficient but leaves the natural monopoly incurring an economic loss. With the increase in output, the average total cost falls, resulting in marginal cost being less than the average cost. Since price is set to equal marginal cost, the price is below the average cost, resulting in an economic loss.

23. Correct Answer = B

Study Session 7-30-d

Explain the process of recording business transactions using an accounting system based on the accounting equations.

The company would create (increase) a liability for dividends payable and deduct the same amount from its retained earnings, thus decreasing owners' equity.

24. Correct Answer = C

Study Session 8-32-h

Describe the components of earnings per share and calculate a company's earnings per share (both basic and diluted earnings per share) for both a simple and a complex capital structure.

$[(180,000 \times 5 / 12) + (240,000 \times 7 / 12)] \times 2 = 430,000$

25. Correct Answer = A

Study session 8-32-b

Explain the general principles of revenue recognition and accrual accounting, demonstrate specific revenue recognition applications (including accounting for

long-term contracts, installment sales, barter transactions, and gross and net reporting of revenue), and discuss the implications of revenue recognition principles for financial analysis.

The IASB's conditions that must be met include that the costs incurred can be reliably measured, the assurance of payment, not the actual receipt of any payment, and that the significant risks and rewards of ownership have been transferred, which is normally when the goods have been delivered, but not always.

26. Correct Answer = C

Study Session 8-32-b

Explain the general principles of revenue recognition and accrual accounting, demonstrate specific revenue recognition applications (including accounting for long-term contracts, installment sales, barter transactions, and gross and net reporting of revenue) and discuss the implications of revenue recognition principles for financial analysis.

The revenue reported is equal to the percentage of the contract that is completed in that period, where percentage completion is based on costs. In Year 2 (3,000,000 / 4,400,000) $\times$ 5,300,000 = 3,613,636

27. Correct Answer = C

Study session 7-29-a

Discuss the roles of financial reporting and financial statement analysis.

Assessment of performance includes analysis of profitability and cash flow generating ability. The relationship between assets and liabilities is used to assess a company's position, not its performance.

28. Correct Answer = B

Study session 7-31-e

Explain the general requirements for financial statements.

The preparation of a complete set of financial statement is a general requirement of financial statements.

29. Correct Answer = B

Study session 8-33-b

Describe the various formats of balance sheet presentation.

Under IAS No.1 liquidity–based presentation is recommended when it provides information that is more relevant and reliable than the current/noncurrent format, such as in the case of banks and financial institutions.

30. Correct Answer = A

Study session 8-34-b

Describe how noncash investing and financing activities are reported.

Non-cash transactions are not reported in the cash flow statement, but if they are significant they are reported in a note or supplementary schedule.

31. Correct Answer =C

Study sessions 8-32-g, 10-43-b

Discuss the financial reporting treatment and analysis of nonrecurring items (including discontinued operations, extraordinary items, and unusual or infrequent items), and changes in accounting standards.

Identify and explain the major international accounting standards for major revenue and expense categories on the income statement, and the key differences from U.S. GAAP.

Extraordinary items are allowed under U.S. GAAP but not under IFRS.

32. Correct Answer = C

Study sessions 10-39-e, 11-47-a

Demonstrate the application of and interpret changes in the component parts of the DuPont analysis (the decomposition of return on equity).

Calculate, interpret, and discuss the DuPont expression and extended DuPont expression for a company's return on equity and demonstrate its use in corporate analysis.

ROE = Net Profit Margin × sales / Total assets × Total Assets / Equity = $4.00 \times 2.80 \times 1.60$ = 17.92%.

Alternatively, ROE = Return on Total Assets × Total Assets / Equity = 11.20×1.60 = 17.92%

33. Correct Answer = B

Study Session 9-38-b

Determine the effects of finance and operating leases on the financial statements and ratios of the lessees and lessor.

Year	Starting Balance	Interest Express @ 12%	Lease Payment	Principal Reduction	Ending Balance
1	10,000	1,200	2,000	800	9,200
2	9,200	1,104			

34. Correct Answer = C

Study Session 9-36-b, c

Compute and describe the effects of capitalizing versus expensing on net income, shareholders' equity, cash flow from operations, and financial ratios including the effect on the interest coverage ratio of capitalizing interest costs.

Explain the circumstances in which software development costs and research and development costs are capitalized.

Companies that capitalize research and development costs report those expenditures in the investing activities section of the statement of cash flower; companies that expense research and development costs report those expenditures in cash flow from operations.

35. Correct Answer = B

Study session 11-47-b

Demonstrate the use of pro forma income and balance sheet statements.

Interest expense is considered a fixed burden and a function of a firm's capital structure, not sales. Current assets are normally a sales driven account. Administrative expenses, although they may contain fixed costs, are primarily sales driven.

36. Correct Answer = A
Study session 11-48-b
Discuss and critique characteristics and practices related to board and committee independence, experience, compensation, external consultants, and frequency of elections and determine whether they are supportive of shareowner protection.
If the chair of the board is a former chief executive of the company, it may hamper efforts to undo the mistakes made by him or her as chief executive. It is not clear if it is better to have all members elected annually (more flexibility to meet changes in the marketplace) or if it is better to have staggered board terms (better continuity of board expertise). All members of the Audit Committee should be independent members of the board.

37. Correct Answer = B
Study session 11-44-e
Explain the NPV profile, compare and contrast the NPV and IRR methods when evaluating independent and mutually exclusive projects, and describe the problems that can arise when using an IRR.
For a project with normal cash flows, the NPV profile intersects the horizontal axis at the point where the discount rate is equal to the IRR. The crossover rate is the discount rate at which the NPVs of the projects are equal. While it is possible that the crossover rate is equal to each project's IRR, it is not a likely event.

38. Correct Answer = C
Study session 11-44-b
Discuss the basic principles of capital budgeting, including the choice of the proper cash flows and determining the proper discount rate.
The cost of the land should reflect the opportunity cost of the foregone sale ($600,000) plus the incremental cost of preparing the land for use as a distribution center ($200,000). $600,000 plus $200,000 equals $800,000.

39. Correct Answer = C
Study session 11-45-b, f
Describe how taxes affect the cost of capital from the different capital sources.
Calculate and interpret the cost of fixed rate debt capital using the yield-to-maturity approach and the debt-rating approach.
The pre-tax cost of debt is the YTM of the bond. The YTM of the bond can be found by solving the following equation for i:

$$864 = \left(\sum_{t=1}^{20} \frac{30}{(1+i)^t} \right) + \frac{1000}{(1+i)^{20}}$$

Using a financial calculator, enter N =20, PV=-864, PMT=30, and FV=1,000.Compute

I/YR. The result (4%) is the semiannual rate; double it to get the annual rate, 8%. This is the pretax cost of debt. Multiplying the pretax cost of debt by 1- tax rate gives the result 5.2% (8×0.65=5.2). Note: Because the bond pays coupons semiannually, there are 20 periods (10 years times two payments per year) and the periodic coupon payment is $30 (6% of $1,000 per year paid in two equal payments every six months).

40. Correct Answer = B
Study session 14-59-a
Discuss the rationales for, and the possible drawbacks to, the use of price to earnings (P/E), price to book value (P/BV), price to sales (P/S), and price to cash flow (P/CF) in equity valuation.
The price to cash flow ratio is less subject to manipulation by management than earnings, generally more stable than earnings, and it addresses the issues of the differences in accounting conservatism between companies.

41. Correct Answer =C
Study session 13-52-c
Distinguish between call and continuous markets.
In a continuous market, trades occur at any time the market is open and the stocks are priced either by action or by dealers. The dealers make a market in the stock and they are willing to buy or sell for their own account at he specified bid-ask prices.

42. Correct Answer = A
Study session 13-55-a
Explain the three limitations to achieving fully efficient markets.
The three limitations for achieving full capital market efficiency are: 1) cost of information, 2) cost of trading, and 3) limits of arbitrage. Survivorship bias is not one of them.

43. Correct Answer = B
Study Session 14-59-a, b
Discuss the rationales for, and the possible drawbacks to, the use of price to earnings (P/E), price to book value (P/BV), price to sales (P/S), and price to cash flow (P/CF) in equity valuation.
Calculate and interpret P/E, P/BV, P/S, and P/CF.
Negative earnings result in negative trailing P/Es and are not meaningful. Therefore, in such cases, instead of the trailing P/E, the analyst is most likely to use the leading P/E or P/CF ratio.

44. Correct Answer - C
Study Sessions 14-56-c, f; 14-58-a
Calculate and interpret the value both of a preferred stock and a common stock using the dividend discount model (DDM).
Estimate the dividend growth rate, given the components of the required return on equity and incorporating the earnings retention rate and current stock price.

Estimate the implied dividend growth rate, given the components of the required return on equity and incorporating the earnings retention rate and current stock price, differentiate between 1) a growth company and a growth stock, 2) a defensive company and a defensive stock, 3) a cyclical company and a cyclical stock, 4) a speculative company and a speculative stock, and 5) a value stock and a growth stock.

A speculative stock is (i) substantially overvalued and (ii) its P/E is much higher than the industry average P/E. The computations for intrinsic value are:

Implied dividend growth rate = ROE×RR = 20%×0.5 = 10%; Intrinsic value of the stock: €2.20 / (15% - 10%) = €44.00

45. Correct Answer = A

Study Session 13-52-g

Describe the process of buying a stock on margin, compute the rate of return on a margin transaction, define maintenance margin and determine the stock price at which the investor would receive a margin call.

Determine the stock price at which the investor receives a margin call by solving for the critical stock price, P, as:

[(# of shares×P) – Margin Loan] / (# of shares×P) = % of Maintenance Margin

(300P - $4000) / 300P=0.30;

P = $4000 / 210 = $19.05

46. Correct Answer = C

Study session 17-70-f

Define intrinsic value and time value, and explain their relationship.

The intrinsic value of a call option is the stock price less the strike price = $1. The stock trading at $96 can be purchased for $95.

47. Correct Answer = C

Study Session 17-69-b

Differentiate between margin in the securities markets and margin in the futures markets, and define initial margin, maintenance margin, variation margin, and settlement price.

It is the amount of money that must be deposited into an account by a party opening a futures position; the money helps ensure that the party fulfills his/her obligation.

48. Correct Answer = B

Study Session 17-67-a

Define a derivative and differentiate between exchange-traded and over-the-counter derivatives.

This is the definition directly out of the readings. Its return is derived from another underlying asset.

49. Correct Answer = B

Study Session 18-73-e

Describe the various approaches to the valuation of real estate.

One variation of the sales comparison approach (hedonic price estimation) uses recent transactions in the area to derive an equation that weights various property attributes to determine a value for the property.

50. Correct Answer=C
Study Session 18-73-f
Calculate the net operating income (NOI) from a real estate investment, the value of a property using the sales comparison and income approaches, and the after-tax cash flows, net present value, and yield of a real estate investment
NOI = $180,000 - $15,000 - $10,000 - $18,000 = $137,000.

51. Correct Answer = B
Study Session 18-73-i
Discuss the descriptive accuracy of the term "hedge fund"; define hedge fund in terms of objectives, legal structure, and fee structure; and describe the various classifications of hedge funds.
Emerging-market funds invest in less liquid and less efficient assets of emerging markets that are difficult to short.

52. Correct Answer = C
Study Session 16-66-f
Compute the duration of a portfolio, given the duration of the bonds comprising the portfolio, and explain the limitations of portfolio duration.
The duration of a portfolio is equal to the sum of the weighed durations of the individual bonds, with each weight equal to the market value of the bond divided by the market value of the portfolio, then

$$\frac{500,000}{2,000,000} \times 6.2 + \frac{1,200,000}{2,000,000} \times 8.1 + \frac{300,000}{2,000,000} \times 2.9 = 1.55 + 4.86 + 0.435 = 6.85$$

53. Correct Answer =C
Study Session 15-62-i
Define an asset-backed security, describe the role of a special purpose vehicle in an asset-backed securities transaction, state the motivation for a corporation to issue an asset-backed security, and describe the types of external credit enhancements for asset-backed securities.
The rating of asset-backed securities typically is independent of the issuer or originating firm's credit; the rating depends on the collateral offered and the strength of any external or internal credit enhancements.

54. Correct Answer = C
Study Session 16-66-g
Describe the convexity measure of a bond and estimate a bond's percentage price change, given the bond's duration and convexity and a specified change in interest rates.

The percentage change in the bond's value is equal to:

(-Duration× $\triangle y^*$× 100%) + (C x $(\triangle y^*)^2$× 100%),

= (-6.5×-0.01 x 100%) + (-42.4 x $(-0.01)^2$× 100%) = +6.5% - 0.424% = +6.08%.

55. Correct Answer = A

Study Session 15-63-i

Compute the after-tax yield of a taxable security and the tax-equivalent yield of a tax-exempt security.

The indifference point would be the tax rate that satisfies the equation: 6.0%× (1 - T) = 4.5%. Solving for T, the marginal tax rate = 25%.

56. Correct Answer = B

Study Session 16-64-b

Identify the types of bonds for which estimating the expected cash flows is difficult, and explain the problems encountered when estimating the cash flows for these bonds.

Both the zero coupon and Treasury strip bonds have cash flows that can be estimated with certainty.

57. Correct Answer=B

Study Session 16-64-c, f

Compute the value of a bond and the change in value that is attributable to a change in the discount rate.

Explain the arbitrage-free valuation approach and the market process that forces the price of a bond toward its arbitrage-free value, and explain how a dealer can generate an arbitrage profit if a bond is mispriced.

Each cash flow is discounted by the appropriate spot rate:

$$\frac{\$50.00}{1.03}+\frac{\$50.00}{(1.035)^2}+\frac{\$1,050,00}{(1.04)^3}=\$48.54+\$46.68+\$933.45=\$1,028.67$$

58. Correct Answer = B

Study Session 12-51-c

Define systematic and unsystematic risk and explain why an investor should not expect to receive additional return for assuming unsystematic risk.

Systematic (market-related) risk cannot be eliminated by diversification. Unsystematic (unique, company-specific) risk can be reduced by diversification.

An investor can enjoy the benefits of diversification any time security returns have less than perfect positive correlations.

59. Correct Answer =A

Study Session 12-49-e

Describe the importance of asset allocation, in terms of percentage of a portfolio's return that can be explained by the target asset allocation, and explain how political and economic factors result in differing asset allocations by investors in various countries.

Studies have shown that for a single fund, the asset allocation decision explains more than 100% of the level of return.

60. Correct Answer = C

Study Session 12-51-d

Explain the capital asset pricing model, including the security market line (SML) and beta, and describe the effects of relaxing its underlying assumptions.

Under the assumption of no transactions costs, investors will purchase or sell mispriced securities until they plot on the SML. In the presence of transactions costs, investors will not correct all mispricing because transactions costs may exceed any potential gains. Securities will plot close to the SML but not exactly on it. Thus the SML will no longer plot on a single line.