

# 2010 Level 1 Sample Exam Volume 1

## SS1-Ethics and Professional Standards

1. Gabrielle Gabber CFA has been accused of professional misconduct by one of her competitors. The allegations concern Gabber's personal bankruptcy filing when she was a college student ten years ago and had a large amount of uninsured medical bills. By not disclosing the bankruptcy filing to her clients, did Gabber violate any CFA Institute Standards of Professional Conduct?
  - A. No
  - B. Yes, related to Misconduct
  - C. Yes, related to Misrepresentation
  
2. Bryan Barrett, CFA, provides investment advice on gold and other hard assets to several large institutions. To broaden his business and meet increased interest in these assets from retail customers, Barrett advertises his services in publications that serve a general audience. Because the client base for the institutions that Barrett serves is large, he is comfortable stating in the ad that thousands of his clients have benefited from his advice. Does Barrett's advertisement violate any CFA Institute standards of Professional Conduct?
  - A. No
  - B. Yes, related to Misrepresentation
  - C. Yes, related to Communication with Clients
  
3. While at a bar in the financial district after work, Ellen Miffitt, CFA, overhears several employees at one of her competitors discuss how they will manipulate down the price of a thinly traded micro cap stock over the next few days. Miffitt's clients have large positions of this stock and when she arrives at work the next day she immediately sells all of these holdings. Because she has determined that the micro cap stock was suitable for all of her accounts, even at its previously higher price. Miffitt buys back her clients' original exposure at the end of the week at the new, lower price. Which CFA Institute standards of Professional Conduct did Miffitt least likely violate?
  - A. Market Manipulation
  - B. Preservation of confidentiality
  - C. Material Nonpublic Information
  
4. Diana Fairbanks, CFA, is married to an auditor who is employed at a large accounting firm. When her husband mentions that a computer firm he audits will receive a qualified opinion, she thinks nothing of it. Later that week, when she reviews a new

client's account, she notices that there are substantial holdings of this same computer company. When she does an Internet search for news on the company, she does not find anything about its most recent audit or anything adverse. Which of the following actions concerning the computer stock should Fairbanks *most likely* take to avoid violating the CFA Institute Standards of Professional conduct?

- A. Take no investment action.
- B. completes a thorough and diligent analysis of the company and then sell the stock.
- C. sell the stock immediately as she has a reasonable basis for taking this investment action.

5. Sherry Buckner, CFA, manages equity accounts for governmental entities, which are conservative and risk averse. Since her clients seek increased returns, Buckner considers adding a new, thinly traded, leveraged derivative product to their holdings. To make her investment decision, Buckner relies upon comprehensive research data from an investment bank that has a solid reputation for top-quality research. After her review, Buckner immediately positions her accounts so that they each hold 10% of the derivative product. Did Buckner violate any CFA Institute Standards of Professional conduct by purchasing the derivative for her clients?

- A. No
- B. Yes, related to suitability
- C. Yes, related to Loyalty, Prudence, and care

6. Teresa Staal, CFA is an investment officer in a bank trust department. She manages money for celebrities and politicians, including an influential local politician. She receives, from that politician's political party headquarters, a request to disclose his stock holdings. The request indicated that the disclosure is required by law. What steps should Staal take to ensure that she does not violate any CFA Institute Standards of Professional Conduct?

- A. Provide the information and then inform her client.
- B. Send the requested documents and then inform her supervisor.
- C. check with her firm's compliance department to determine what her legal responsibilities are.

7. Sergio Morales, CFA, believes he has found evidence that his supervisor is engaged in fraudulent activity concerning a client's account. When Morales confronts his supervisor he is told that the client is fully aware of the issue. Later that day Morales contacts the client and, upon disclosing his evidence, is told that he should mind his own business. Concerned that his job is at risk and seeking to elevate his ethical reputation should he need to job hunt, Morales provides his evidence and copies of the client's most recent account statements to a government whistleblower program. Morales is *least likely* to have violated which of the following CFA Institute standards

of Professional Conduct?

- A. Duties to Clients
- B. Duties to Employers
- C. Communication with Clients

8. Leng Bo, CFA, is a bond portfolio manager for individual investors. Last year a client, whose portfolio is limited to investment-grade bonds, approved Boo's purchase of a below-investment-grade bond. Because yields in the high-grade fixed-income markets declined, Bo decides to enhance this client's portfolio by investing in several additional bonds with ratings one or two notches below investment grade. The investment strategy implemented by Bo *most likely* violated which of the following CFA Institute Standards of Professional Conduct?

- A. Suitability
- B. Independence and objectivity
- C. Communications with Clients

9. Sisse Brimberg, CFA, is responsible for performance presentations at her investment firm. The presentation that Brimberg uses states that her firm: (1) excludes all fees and taxes. (2) uses actual and simulated performance results, and (3) bases the performance on a representative individual account. Based on the above information, which of the following is the most appropriate recommendation to help Brimberg meet the CFA Institute Standards of Professional conduct in her performance presentations? She should present performance

- A. that is based on actual, not simulated, results.
- B. that is calculated on a gross of fee basis.
- C. of a weighted composite of all portfolios.

**SS2/3-Quantitative Methods**

10. Assume that a stock price over the next two periods is as shown below.

Time=0	Time=1	Time=2
$S_0=100$	$S_u=110$	$S_{uu}=121$
	$S_d=92$	$S_{ud,du}=101.20$
		$S_{dd}=84.64$

The initial value of the stock is \$100. The probability of an up move in any given period is 40% and the probability of a down move in any given period is 60%. Using the binomial model, the probability (in %) that the stock's price will be \$101.20 at the end of two periods is closest to:

- A. 16.
- B. 24.
- C. 48.

11. Using the sample data given below, drawn as 25 Paired observations from their underlying distributions, test if the mean returns of the two portfolios differ from each other at the 1% level of statistical significance. Assume that the underlying distributions of returns for each portfolio are normal and that their population variances are not known.

	Portfolio 1	Portfolio 2	Difference
Mean Return	17.00	21.25	4.25
Standard Deviation	15.50	15.75	6.25
t-statistic for 24 df and at the 1% level of statistical significance = 2.807			

Based on the paired comparisons test of the two portfolios, the *most appropriate* conclusion is:

- A. reject the hypothesis that the mean difference equals zero as the computed test statistic exceeds 2.807.
- B. accept the hypothesis that the mean difference equals zero as the computed test statistic exceeds 2.807.
- C. accept the hypothesis that the mean difference equals zero as the computed test statistic is less than 2.807.

12. The following ten observations are selected in a sample drawn from a normal population: 25, 20, 18, -5, 35, 21, -11, 8, 20, and 9. The mean of the sample is closest to:

- A. 14.00.
- B. 15.56.
- C. 17.20.

13. A sample of 25 observations has a sample mean of 8 and a sample standard deviation of 15. The standard error of the sample mean is closest to:

- A. 1.60.
- B. 3.00.
- C. 3.06.

14. The Central Limit Theorem is best described as stating that the sampling distribution of the sample mean will be approximately normal for large-size samples:

- A. if the population distribution is normal.
  - B. if the population distribution is symmetric.
  - C. for populations described by any probability distribution.
15. The dollar discount on a U.S. Treasury bill with 91 days until maturity is \$2, 100. The face value of the bill is \$100, 000. The bank discount yield of the bill is closest to:
- A. 8.31%.
  - B. 8.40%.
  - C. 8.58%.
16. Predicting the future direction of stock price movements based on the percentage of stocks whose prices are above their 200-day moving averages is best described as a:
- A. momentum indicator,
  - B. contrary-opinion rule.
  - C. relative strength indicator.

**SS4/5/6-Economics**

17. Over a given period, the price of a commodity falls by 5.0% and the quantity demanded rises by 73%. The price elasticity of demand for the commodity is best described as:
- A. elastic.
  - B. inelastic.
  - C. perfectly elastic.
18. Regarding a company's production function, both labor costs and capital costs are best described as:
- A. fixed in the long run.
  - B. variable in the long run.
  - C. variable in the short run.
19. Assume that two firms in a duopoly enter into a collusive agreement in an attempt to form a cartel and restrict output, raise prices, and increase profits. Given this, the most likely outcome according to the Nash equilibrium is that:
- A. both firms cheat.
  - B. both firms comply.
  - C. one firm cheats and the other firm complies.

20. The tools used by the U.S. Federal Reserve System (the Fed) to implement monetary policy most likely include:
- A. transfer payments.
  - B. open market operations.
  - C. raising or lowering income taxes.
21. Suppose that inflation increases due to increases in government spending and a reduction in taxes. Such inflation is best described as:
- A. cost-push inflation.
  - B. demand-pull inflation.
  - C. monetarist cycle theory.
22. Government policies to stimulate an economy suffering a recession and designed to reduce unemployment in the short run are most likely directed toward reducing which type of unemployment?
- A. Cyclical
  - B. Frictional
  - C. Structural

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

23. common-size financial statements are *most likely* an output of which step in the financial analysis framework? Select exactly 1 answer(s) from the following:
- A. Collect data
  - B. Process data
  - C. Analyze/interpret data
24. Which of the following statements is most accurate?
- A. Accrued revenue arises when a company receives cash prior to earning the revenue.
  - B. A valuation adjustment for an asset converts its historical cost to its depreciated value.
  - C. Accrued expenses arise when a company incurs expenses that have not yet been paid as of the end of the accounting period.
25. According to the International financial Reporting Standards (IFRS) framework, which or the following is the *least likely* qualitative characteristic that makes financial information useful?

- A. Materiality
- B. comparability
- C. Understandability

26. A company uses the percentage-of-completion method to recognize revenue from its long-term construction contracts and estimates percent completion based on expenditures incurred as a percentage of total estimated expenditures. A three-year contract for €10 million was undertaken with a 30% gross profit anticipated. The project is now at the end of its second year, and the following end-of-year information is available:

	Year1	Year2
Costs incurred during year	€3,117,500	€2,582,500
Estimated total costs	€7,250,000	€7,600,000

The gross profit (in €) recognized in year 2 is closest to:

- A. 617,500.
- B. 880,000.
- C. 960,000.

27. At the start of the year, a company acquired new equipment at a cost of €50,000. The equipment is estimated to have a 3-year life and a residual value of €5,000. If the company depreciates the asset using the double declining balance method, at the end of the third year it will *most likely* report depreciation expense (in €) on this asset of:

- A. 555.
- B. 3,328.
- C. 3,705.

28. The following financial information is available at the end of the current year.

	Share Information		
Security	Authorized	issued & Outstanding	other Features
common stock	500,000	250,000	Currently pays a dividend of \$1 per share
Preferred stock Series A	50,000	12,000	Nonconvertible, cumulative; pays a dividend of \$4 per share
Preferred stock Series B	50,000	30,000	Convertible; pays a dividend of \$7.50 per share. Each share is convertible into 2.5

			common shares.
--	--	--	----------------

Additional Information:

Retained earnings at start of year \$6,000,000

Reported income for the current year \$1,000,000

The fully diluted EPs (in \$/share) is closest to:

- A. 2.91.
- B. 2.93.
- C. 3.08.

29. A review of a company's inventory records for the year indicates that the following costs were incurred:

Fixed production overhead:	\$500,000
Direct material and direct labor	300,000
Storage costs incurred during production:	25,000
Abnormal waste costs:	30,000

If the company operated at full capacity during the year, the total capitalized inventory cost (\$) is closest to:

- A. 800,000.
- B. 825,000.
- C. 855,000.

30. A company that prepares its financial statements in accordance with International Financial Reporting standards (IFRS) is in the process of developing a more efficient production process for one of its primary products. The *most appropriate* accounting treatment for the costs incurred in the project is to:

- A. expense all costs as incurred.
- B. capitalize costs directly related to the development.
- C. expense costs until technical feasibility has been established,

31. At the beginning of the year a company purchased a fixed asset for \$500,000 with no expected residual value. The company depreciates similar assets on a straight-line basis over 10 years while the tax authorities allow depreciation at the rate of 15% per year. In both cases the company takes a full year depreciation in the first year. At the end of the year, the tax base and temporary difference in the value of the asset, respectively, are closest to:

- A. \$425,000; \$25,000.
- B. \$425,000; \$75,000.
- C. \$500,000; \$25,000.



32. The following information is taken from a company's annual report (all figures in millions):

Total assets	\$250
Total debt	150
Total equity	100
Net income	25

'During the year the Company entered into a 20-year take-or-pay contract that requires us to purchase a minimum of \$0.750 of hydro-electrical power annually, stating next year.' The Company's average cost of long-term borrowing is 7%.

If an analyst were to include the take-or-pay contract in his analysis, the company's debt-to-equity ratio and return-on-assets, respectively, will be closest to:

- A. 1.58; 10.0 %
- B. 1.65; 94%.
- C. 1.65; 10.0%.

33. Which of the following is least likely to be a warning sign of low-quality earnings?

- A. Greater use of operating leases than peer companies
- B. Use of a higher discount rate in pension plan assumptions
- C. A ratio of operating cash flow to net income greater than 1.0

34. An analyst uses a stock screener and selects the following metrics: a global equity index, P/E ratio lower than the median P/E ratio, and a price-book value ratio lower than the median price-book value ratio. The stocks so selected would be *most appropriate* for portfolios of which type of investors?

- A. Value investors
- B. Growth investors
- C Market-oriented investors

### SS11-Corporate Finance

35. A project has the following annual cash flows:

Year0	Year1	Year2	Year3	Year4
-\$4,662,005	\$22,610,723	-\$41,072,261	\$33,116,550	-\$10,000,000

Which of the following discount rates most likely produces the *highest* net present value (NPV)?

- A. 8%
- B. 10%
- C. 15%

36. If a company's marginal cost of capital is greater than the associated return on the investment opportunity schedule, the company's capital budget is

- A. at the optimal level.
- B. above the optimal level.
- C. below the optimal level.

37. The cost of which source of capital *most likely* requires adjustment for taxes in the calculation of a firm's weighted average cost of capital?

- A. Bonds
- B. Common stock
- C. Preferred stock

38. Other factors held constant, the reduction of a company's average accounts payables due to suppliers offering less trade credit will *most likely*:

- A. reduce the operating cycle.
- B. increase the operating cycle.
- C. not affect the operating cycle.

39. Which of the following is *most likely* a sign of a good corporate governance structure?

- A. Independent board members constitute a minority proportion on the company's board.
- B. Independent board members are allowed to meet shareholders only in the presence of the entire board.
- C. The separation of the chief executive position from the chair position on the company's board.

### **SS13/14-Equity Investments**

40. An investment banker agreeing to sell an issue on a best-efforts basis is most likely to:

- A. act as a broker and sell the issue at a stipulated price.
- B. earn a higher commission on the issue than if it were underwritten.
- C. buy the issue from the firm and accept the risk of selling it to the public.

41. The most accurate classification of research studies testing the weak-form and the semi-strong-form of efficient market hypotheses, respectively, are:

- A. tests of trading rules and the January anomaly.
- B. return prediction studies and the value Line enigma.
- C. tests of independence and the performance of professional managers.

42. If capital markets are efficient and a portfolio manager lacks access to superior analysts, her *most important function(s)* should be to:

- A. diversify completely on a global basis and eliminate all unsystematic risk.
- B. concentrate efforts in mid-cap and small-cap stocks having adequate liquidity.
- C. pay particular attention to the BV/MV ratio of stocks and to the monetary policy environment.

43. Which of the following is the most appropriate discount rate when deriving the value of a firm using operating free cash flows?

Select exactly 1 answer(s) from the following:

- A. Firm's cost of equity capital
- B. Investors' required rate of return
- C. Firm's weighted average cost of capital

44. An analyst gathers the following data about a company.

Profit margin	8%
Return on assets	10%
Financial leverage	13
Dividend payout ratio	40%

The company's growth rate is closest to:

- A. 6.0%.
- B. 7.2%.
- C. 9.0%.

45. An investor evaluating a company's common stock has gathered the following data.

Current dividend per share 5p.4o	\$2.4
Dividend growth rate expected during Years 1-2	20%
Dividend growth rate expected from Year 3 onward	4%
Company's weighted average cost of capital	13%
Company's cost of equity	15%

The value per share of this common stock is closest to:

- A. \$24.86.
- B. \$29.82.
- C. \$37.78.

#### SS17-Derivative Investments

46. Two parties agree to a forward contract to deliver a non-dividend paying stock at a price of S103.00. At contract expiration the stock trades at S105.00. In a cash-settled forward contract, the:

- A. short pays the long S2.00.
- B. short pays the long S103.00.
- C. long pays the short S105.00.

47. A combination of interest rate calls is referred to as a:

- A. cap.
- B. floor.
- C. caplet.

48. A European call option, on a non-dividend paying stock with a strike price of S25.00, expires in 3 months and currently trades at S29.00. The risk-free rate is 5.00%. The lower bound for the European call is closest to:

- A. \$0.00.
- B. \$4.00.
- C. \$4.30.

#### SS18-Alternative Investments

49. An office building with net operating income of \$75,000 recently sold for \$937,500. Financial data for a comparable building being sold is presented in the table below.

	Annual income or expenses
Gross potential rental income	\$300,000
Estimated vacancy and collection losses	4%
Insurance and taxes	\$27,000
Utilities	\$14,000
Repairs and maintenance	\$21,000

Depreciation	\$1 5,000
Interest rate on proposed financing	7%

The estimated value for the building being sold using the income approach is closest to:

- A. \$2,825,000.
- B. \$2,975,000.
- C. \$3,228,500.

50. An initial investment of \$1 million in a venture capital project is expected to pay \$10 million at the end of 5 years if it is successful. The probabilities of failure for the project are provided in the table below:

Year:	1	2	3	4	5
Failure Probability:	0.30	0.25	0.20	0.20	0.20

If the cost of capital for the project is 18%, the project's expected NPV is closest to:

- A. -\$731,000.
- B. \$175,000.
- C. \$906,000.

51. An investor in exchange traded funds (ETFs) is *most likely* to benefit from its:

- A. end-of-day pricing.
- B. lack of tracking error risk.
- C. lower capital gains tax liability relative to mutual funds.

#### SS15/16-Fixed Income Investments

52. A 10-year bond is issued on January 1, 2010. Its contract requires that its coupon rate change over time as shown in the following exhibit:

Coupon Payment Date Range	Coupon Rate
01/01/2010-12/31/2011	2.0%
01/01/2012-12/31/2013	5.0%
01/01/2014-12/31/2015	7.5%
01/01/2016-12/31/2019	9.0%

This security is best described as an example of a:

- A. step-up note.
- B. floating-rate bond.

C. deferred coupon bond.

53. A 5-year floating-rate security was issued on January 1, 2003. The coupon rate formula was 1-year LIBOR + 300 bps with a cap of 10% and a floor of 5% and annual reset. The 1-year LIBOR rate on January 1st of each year of the security's life is provided in the following exhibit:

Year	1-Year LIBOR
2003	3.5%
2004	4.0%
2005	3.0%
2006	2.0%
2007	1.5%

During 2007, the payments owed by the issuer were most likely based on a coupon rate of:

- A. 1.5%.
  - B. 4.5%.
  - C. 5.0%.
54. Which of these is the best example of an embedded option granted to bondholders?
- A. A prepayment option
  - B. A floor on a floating rate security
  - C. An accelerated sinking fund provision
55. A bond has a 10-year maturity, a \$1,000 face value, and a 7% coupon rate. If the market requires a yield of 8% on the bond, it will *most likely* trade at:
- A. par.
  - B. a discount.
  - C. a premium
56. When interest rates fall, the price of a callable bond will rise:
- A. less than an option-free bond.
  - B. more than an option-free bond.
  - C. the same as an option-free bond.
57. A bond is selling for 98.2. It is estimated that the price will fall to 96.6 if yields rise 30 bps and that the price will rise to 100.1 if yields fall 30 bps. Based on these estimates, the duration of the bond is closest to:

- A. 1.78.
- B. 5.94.
- C. 11.88.

### SS12-Portfolio Management

58. The table below shows allocations for a model portfolio constructed by an investment advisor

Asset Category	Weight in Portfolio
Cash	5%
<b>Government Bonds</b>	
Short-term	15%
Long-term	15%
<b>Equity</b>	
S&P 500 stocks	35%
Growth stocks	25%
Venture capital	5%

The portfolio presented in the table above is appropriate for an investor seeking:

- A. current income.
- B. capital preservation.
- C. capital appreciation.

59. Compared to an investor with a short investment horizon, an investor with a long investment horizon will most likely require:

- A. less liquidity and have lower risk tolerance.
- B. more liquidity and have lower risk tolerance.
- C. less liquidity and can tolerate higher levels of risk.

60. The following table presents information for two stocks, RTF and KIU:

Variance of returns for RTF	0.0625
Variance of returns for KIU:	0.0900
Correlation coefficient between RTF and KIU:	0.4500

:

The covariance between RTF and KIU is closest to:

- A. 0.0025.
- B. 0.0338.
- C. 0.0675.

