

2013 Level I Mock Exam: Morning Session

The morning session of the 2013 Level I Chartered Financial Analyst (CFA®) Mock Examination has 120 questions. To best simulate the exam day experience, candidates are advised to allocate an average of 1.5 minutes per question for a total of 180 minutes (3 hours) for this session of the exam.

Questions	Topic	Minutes
1–18	Ethical and Professional Standards	27
19–32	Quantitative Methods	21
33–44	Economics	18
45–68	Financial Statement Analysis	36
69–78	Corporate Finance	15
79–90	Equity Investments	18
91–96	Derivative Investments	9
97–108	Fixed Income Investments	18
109–114	Alternative Investments	9
115–120	Portfolio Management	9
	Total:	180

Questions 1 through 18 relate to Ethical and Professional Standards.

1. Bailey Watson, CFA manages 25 emerging market pension funds. He recently had the opportunity to buy 100,000 shares in a publicly listed company whose prospects are considered “above industry norm” by most analysts. The company’s shares rarely trade because most managers take a “buy and hold” strategy because of the company’s small free float. Before placing the order with his dealer, Watson allocated the shares to be purchased according to the weighted value of each of his clients’ portfolios. When it came time to execute the trades, the dealer was only able to purchase 50,000 shares. To prevent violating Standard III (B) Fair Dealing, it would be *most* appropriate for Watson to reallocate the 50,000 shares purchased by:
 - A. reducing each pension fund’s allocation proportionately.
 - B. distributing them equally amongst all the pension fund portfolios.
 - C. allocating randomly but giving funds left out priority on the next similar type trade.

2. Dilshan Kumar, CFA, is a world-renowned mining analyst based in London. Recently, he received an invitation from Cerberus Mining, a London Stock Exchange listed company with headquarters in Johannesburg, South Africa. Cerberus asked Kumar to join a group of prominent analysts from around the world on a tour of its mines in South Africa, some of which are in remote locations, not easily accessible. The invitation also includes an arranged wildlife safari to Krueger National Park for the analysts. Kumar accepts the invitation, planning to visit other mining companies he covers in Namibia and Botswana after the safari. To prevent violating any CFA Institute Standards of Professional Conduct, it is *most* appropriate for Kumar to only accept which type of paid travel arrangements from Cerberus?
 - A. Ground transportation to Krueger National Park
 - B. Economy class round trip ticket from London to Johannesburg
 - C. Flights on a private airplane to the remote mining sites in South Africa

3. Abdul Naib, CFA, was recently asked by his employer to submit an updated document providing the history of his employment and qualifications. The existing document on file was submitted when he was hired five years ago. His employer notices the updated version shows Naib obtained his Master of Business Administration (MBA) degree two years ago, whereas the earlier version indicated he had already obtained his MBA. Because the position Naib was hired for had a minimum qualification of an MBA, Naib is asked to explain the discrepancy. He justifies his actions by stating: “I knew you wouldn’t hire me if I didn’t have an MBA degree, but I already had my CFA designation. Knowing you required an MBA, I went back to school on a part-time basis after I was hired to obtain it. I graduated at the top of my class, but this shouldn’t come as any surprise, as you have seen evidence I passed all of my CFA exams on the first attempt.” Did Naib *most likely* violate the CFA Institute Standards of Professional Conduct?
 - A. No
 - B. Yes, with regard to Misconduct
 - C. Yes, with regard to Reference to the CFA Designation

4. Jack Steyn, CFA, recently became the head of the trading desk at a large investment management firm that specializes in domestic equities. While reviewing the firm's trading operations, he notices clients give discretion to the manager to select brokers on the basis of their overall services to the management firm. Despite the client directive, Steyn would *most likely* violate Standard III (A) Loyalty, Prudence, and Care if he pays soft commissions for which of the following services from the brokers?
- A. Equity research reports
 - B. Investment conference attendance
 - C. Database services for offshore investments
5. Elbie Botha, CFA, an equity research analyst at an investment bank, disagrees with her research team's buy recommendation for a particular company's rights issue. She acknowledges the recommendation is based on a well-developed process and extensive research but feels the valuation is overpriced based on her assumptions. Despite her contrarian view, her name is included on the research report to be distributed to all of the investment bank's clients. To avoid violating any CFA Institute standards, it would be *least* appropriate for Botha to undertake which of the following?
- A. Leave her name on the report
 - B. Insist her name is removed from the report
 - C. Issue a new report based on her conclusions
6. Colleen O'Neil, CFA, manages a private investment fund with a balanced global investment mandate. Her clients insist that her personal investment portfolio replicate the investments within their portfolio to assure them she is willing to put her money at risk. By undertaking which of the following simultaneous investment actions for her own portfolio would O'Neil *most likely* be in violation of Standard VI (B) Priority of Transactions?
- A. Sale of a listed U.S. blue chip value stock
 - B. Participation in a popular frontier market IPO
 - C. Purchase of a UK government bond in the primary market
7. Christina Ng, a Level I CFA candidate, defaulted on a bank loan she obtained to pay for her Master's degree tuition when her wedding cost more than expected. A micro finance loan company lent her money to pay off the tuition loan in full, including penalties and interest. The micro finance loan company even extended further credit to pay for her parents' outstanding medical bills. Unfortunately, her parents' health problems escalated to the point where Ng had to take extensive time away from work to deal with the issues. She was subsequently fired and consequently defaulted on the second loan. Because she was no longer employed, Ng decided to file for personal bankruptcy. Do the loan defaults leading up to Ng's bankruptcy *most likely* violate Standard I (D) Misconduct?

- A. No
- B. Yes, with regard to the first loan default
- C. Yes, with regard to the second loan default

8. Charles Mbuwanga, a Level III CFA Candidate, is the business development manager for Sokoza Investment Group, an investment management firm with high-net-worth retail clients throughout Africa. Sokoza introduced listed Kenyan Real Estate Investment Trusts (REITs) to its line of investment products based on new regulations introduced in Kenya so as to diversify its product offering to clients. The product introduction comes after months of researching Kenyan property correlations with other property markets and asset classes in Africa. Sokoza assigns Mbuwanga as part of the sales team in introducing this product to its clients across Africa. Mbuwanga subsequently determines most of Sokoza's clients' portfolios would benefit from having a small Kenyan property exposure to help diversify their investment portfolios. By promoting the Kenyan REITs for Sokoza's client portfolios as planned, Mbuwanga would *least likely* violate which of the following standards?

- A. Suitability
- B. Knowledge of the Law
- C. Independence and Objectivity

9. Victoria Christchurch, CFA, is a management consultant currently working with a financial services firm interested in curtailing its high staff turnover, particularly amongst CFA charterholders. In recent months, the company lost 5 of its 10 most senior managers, all of whom have cited systemic unethical business practices as the reason for their leaving. To curtail staff turnover by encouraging ethical behavior, it would be *least* appropriate for Christchurch to recommend the company do which of the following?

- A. Implement a whistleblowing policy
- B. Encourage staff retention with increased benefits
- C. Create, implement and monitor a corporate code of ethics

10. Henrietta Huerta, CFA, writes a weekly investment newsletter to market her services and obtain new asset management clients. A third party distributes the free newsletter on her behalf to those individuals on its mailing list. As a result, it is widely read by thousands of individual investors. The newsletter recommendations reflect most of Huerta's investment actions. After completing further research on East-West Coffee Roasters, Huerta decides to change her initial buy recommendation to a sell. To avoid violating the CFA Institute Standards of Professional Conduct it would be *most* appropriate for Huerta to distribute the new investment recommendation to:

- A. newsletter recipients first.
- B. asset management clients first.
- C. newsletter recipients and asset management clients simultaneously.

11. Danielle Deschutes, CFA, is a portfolio manager who is part of a 10-person team that manages equity portfolios for institutional clients. A competing firm, South West Managers, asks Deschutes to interview for a position within its firm and to bring her performance history to the interview. Deschutes receives written permission from her current employer to bring the performance history of the stock portfolio with her. At the interview, she discloses that the performance numbers represent the work of her team and describes the role of each member. To bolster her credibility, Deschutes also provides the names of institutional clients and related assets constituting the portfolio. During her interview Deschutes *most likely* violated the CFA Institute Standards of Professional Conduct with regards to:
- A. the stock portfolio's performance history.
 - B. her contribution to the portfolio's returns.
 - C. providing details of the institutional clients.
12. When Abdullah Younis, CFA, was hired as a portfolio manager at an asset management firm two years ago, he was told he could allocate his work hours as he saw fit. At that time, Younis served on the board of three non-public golf equipment companies and managed a pooled investment fund for several members of his immediate family. Younis was not compensated for his board service or for managing the pooled fund. Younis' investment returns attract interest from friends and co-workers who persuade him to include their assets in his investment pool. Younis recently retired from all board responsibilities and now spends more than 80% of his time managing the investment pool for which he charges non-family members a management fee. Younis has never told his employer about any of these activities. To comply with the CFA Institute Standards of Professional Conduct with regards to his business activities over the past two years, Younis would *least likely* be required to disclose which of the following to his employer?
- A. Board activities
 - B. Family investment pool management
 - C. Non-family member management fees
13. Kim Klausner, CFA, monitors several hundred employees as head of compliance for a large investment advisory firm. Klausner has always ensured that his company's compliance program met or exceeded those of its competitors. Klausner, who is going on a long vacation, has delegated his supervisory responsibilities to Sue Chang. Klausner informs Chang that her responsibilities include detecting and preventing violations of any capital market rules and regulations, and the CFA Institute Code and Standards. Klausner *least likely* violated the CFA Institute Standards of Professional Conduct by failing to instruct Chang to also consider:
- A. firm policies.
 - B. legal restrictions.
 - C. industry standards.

14. Sheila Schleif, CFA, is an equity analyst at an investment banking division of Mokara Financial Group, a full service financial group. Schleif uses a multi-factor computer model to make stock recommendations for all clients of Mokara. Schleif discovers the model contains an error. If the error were corrected, her most recent buy recommendation communicated to all clients would change to a sell. Schleif corrects the error, changing the buy to a sell recommendation, and then simultaneously distributes via e-mail the revision to all investment banking clients who received the initial recommendation. A week later, Schleif sells the same shares she held in her personal portfolio. Concerning her actions, Schleif *most likely* violated which of the following CFA Institute Standards of Professional Conduct?
- A. Fair Dealing
 - B. Priority of Transactions
 - C. Diligence and Reasonable Basis
15. Rodney Rodrigues, CFA, is responsible for identifying professionals to manage specific asset classes for his firm. In selecting external advisers or sub advisers, Rodrigues reviews the adviser's investment process, established code of ethics, the quality of the published return information, and the compliance and the integrated control framework of the organization. In completing his review, Rodrigues *most likely* violated the CFA Institute Standards of Professional Conduct with regards to his due diligence on:
- A. adherence to strategy.
 - B. performance measures.
 - C. internal control procedures.
16. Jackson Barnes, CFA, works for an insurance company providing financial planning services to clients for a fee. Barnes has developed a network of specialists, including accountants, lawyers, and brokers who contribute their expertise to the financial planning process. Each of the specialists is an independent contractor. Each contractor bills Barnes separately for the work he or she performs, providing a discount based upon the number of clients Barnes has referred. What steps should Barnes take to be consistent with the CFA Institute Standards of Professional Conduct?
- A. Have his independent contractors approved by the insurance company
 - B. List the consideration he receives from the specialists on monthly client invoices
 - C. Inform potential clients about his arrangement with the contractors before they agree to hire him
17. Millicent Plain has just finished taking Level II of the CFA examination. Upon leaving the examination site, she meets with four Level III candidates who also just sat for their exams. Curious about their examination experience, Plain asks the candidates how difficult the Level III exam was and how they did on it. The candidates say the essay portion of the examination was much harder than they had expected and they were not able to complete all questions as a result. The candidates go on to tell Plain about broad topic areas that were tested and complain about specific formulas they had memorized what did not appear on the exam. The Level III

candidates *least likely* violated the CFA Institute Standards of Professional Conduct by discussing:

- A. specific formulas.
- B. broad topic areas.
- C. the examination essays.

18. On a flight to Europe, Romy Haas, CFA, strikes up a conversation with a fellow passenger, Vincent Trujillo. When Trujillo learns Haas is in the investment profession, he asks about the CFA designation. Haas tells him the following about the CFA designation:

Statement 1: Individuals who have completed the CFA Program have the right to use the CFA designation.

Statement 2: The CFA designation is globally recognized which is why I use it as part of my firm's name

Statement 3: CFA charterholders must satisfy membership requirements to continue using the designation.

In explaining the use of the CFA designation, Haas *least likely* violated the CFA Institute Standards of Professional Conduct concerning which of the following statements?

- A. Statement 1
- B. Statement 2
- C. Statement 3

Questions 19 through 32 relate to Quantitative Methods

19. The nominal (quoted) annual interest rate on an automobile loan is 10%. The effective annual rate of the loan is 10.47%. The frequency of compounding periods per year for the loan is *closest* to:

- A. weekly.
- B. monthly.
- C. quarterly.

20. Equity return series are *best* described as, for the most part:

- A. platykurtotic (less peaked than a normal distribution).
- B. leptokurtotic (more peaked than a normal distribution).
- C. mesokurtotic (identical to the normal distribution in peakedness).

21. The following 10 observations are a sample drawn from an approximately normal population:

Observation	1	2	3	4	5	6	7	8	9	10
Value	-3	-11	3	-18	18	20	-6	9	2	-16

The sample standard deviation is *closest* to:

- A. 11.92.
- B. 12.50.
- C. 13.18.

22. Event X and event Y are independent events. The probability of X is 0.2 [$P(X) = 0.2$] and the probability of Y is 0.5 [$P(Y) = 0.5$]. The joint probability of X and Y [$P(X, Y)$] is *closest* to:

- A. 0.1.
- B. 0.3.
- C. 0.7.

23. Assume that a stock's price over the next two periods is as shown below.

Time = 0	Time = 1	Time = 2
$S_0 = 80$	$S_u = 88$	$S_{uu} = 96.8$
	$S_d = 72$	$S_{ud,du} = 79.2$
		$S_{dd} = 64.8$

The initial value of the stock is \$80. The probability of an up move in any given period is 75% and the probability of a down move in any given period is 25%. Using the binomial model, the probability that the stock's price will be \$79.20 at the end of two periods is *closest* to:

- A. 18.75%.
- B. 37.50%.
- C. 56.25%.

24. Which of the following statements of null and alternative hypotheses requires a two-tailed test?

- A. $H_0: \theta = \theta_0$ versus $H_a: \theta \neq \theta_0$
- B. $H_0: \theta \leq \theta_0$ versus $H_a: \theta > \theta_0$
- C. $H_0: \theta \geq \theta_0$ versus $H_a: \theta < \theta_0$

25. A stock is declining in price and reaches a price range wherein buying activity is sufficient to stop the decline. This is *best* described as a:

- A. support level.
- B. resistance level.
- C. change in polarity point.

26. You are given the following discrete uniform probability distribution of gross profits from purchase of an option:

Profit	Cumulative Distribution Function
\$0	0.2

\$1	0.4
\$2	0.6
\$3	0.8
\$4	1.0

The probability of a profit greater than or equal to \$1 and less than or equal to \$4 is *closest* to:

- A. 0.4.
- B. 0.6.
- C. 0.8.

27. A sample of 240 managed portfolios has a mean annual return of 0.11 and a standard deviation of returns of 0.23. The estimate of the standard error of the sample mean is *closest* to:

- A. 0.00096.
- B. 0.00710.
- C. 0.01485.

28. An analyst wants to estimate the return on the S&P 500 Index for the current year using the following data and assumptions:

- Sample size = 50 securities from the index
- Mean return for those stocks in the sample for the previous year = 0.114
- Variance = 0.0529
- The reliability factor for a 95% confidence interval with unknown population variance and sample size greater than 30 is $z_{0.025} = 1.96$.

If he assumes that the S&P return this year will be the same as it was last year, which of the following is the *best* estimate of the 95% confidence interval for this year's S&P return?

- A. -0.11600 to +0.34400
- B. +0.05024 to +0.17775
- C. +0.06110 to +0.16690

29. The liquidity premium can be *best* described as compensation to investors for the:

- A. risk of loss relative to an investment's fair value if the investment needs to be converted to cash quickly.
- B. increased sensitivity of the market value of debt to a change in market interest rates as maturity is extended.
- C. possibility that the borrower will fail to make a promised payment at the contracted time and in the contracted amount.

30. The following table shows the volatility of a series of funds that belong to the same peer group, ranked in ascending order:

	Volatility (%)			Volatility (%)
Fund 1	9.81		Fund 8	13.99
Fund 2	10.12		Fund 9	14.47
Fund 3	10.84		Fund 10	14.85
Fund 4	11.33		Fund 11	15.00
Fund 5	12.25		Fund 12	17.36
Fund 6	13.39		Fund 13	17.98
Fund 7	13.42			

The value of the first quintile is *closest* to:

- A. 10.70%.
- B. 10.84%.
- C. 11.09%

31. The most recent returns of a fund are as follow:

Year	Return (%)
2007	-20.60
2008	15.00
2009	0.50
2010	9.80
2011	4.60

The mean absolute deviation of returns for the fund is *closest* to:

- A. 9.53%.
- B. 11.91%.
- C. 13.69%.

32. Consider the following information in relation to a portfolio composed of Fund A and Fund B:

	Fund A	Fund B
Portfolio weights (%)	70	30
Expected returns (%)	10	16
Standard deviations (%)	7	13
Correlation between the returns of Fund A and Fund B	0.80	

The portfolio standard deviation of returns is *closest* to:

- A. 7.38%.
- B. 8.35%.
- C. 8.80%.

Questions 33 through 44 relate to Economics

33. A college student's monthly demand for pizza is given by the equation:

$Q^D_{\text{Pizza}} = 11 - 0.70 P_{\text{Pizza}} + 0.009 I - 0.20 P_{\text{Cola}}$	
where	Q^D_{Pizza} is the number of pizzas ordered per month
	P_{Pizza} is the price of a pizza
	I is her monthly food budget
	P_{Cola} is the price of cola per bottle

The student's current monthly food budget is \$500, the price of a pizza is \$5 and the price of cola is \$1.25/bottle. If the student's monthly food budget were to increase to \$700, the slope of her demand curve for pizza would be *closest* to:

- A. -2.42.
- B. -1.43.
- C. -0.70.

34. Partial information on three baskets containing goods A and B is given in the table below. The marginal rate of substitution of B for A, (MRS_{BA}), at Basket 2 is also provided.

Basket	Units of A	Units of B	MRS_{BA}
1	?	30	
2	50	35	4.0
3	40	40	

A consumer's indifference curves are strictly convex and he claims that he is indifferent between Baskets 2 and 3. If he is also indifferent between Baskets 1 and 3, the number of units of A in basket 1 is *most likely*:

- A. equal to 60.
- B. less than 60.
- C. greater than 60.

35. Three firms operate under perfect competition, producing 900 units of the same product but using different production technologies. Each company's cost structure is indicated below:

Company	X	Y	Z
Total Variable Costs	\$2,700	\$3,600	\$4,500
Total Fixed Costs	2,700	1,800	900
Total Costs	\$5,400	\$5,400	\$5,400

Which of the following statements is *most* accurate? If the unit selling price is:

- A. \$6.00, all firms should exit the market in the long run.
- B. \$3.50, firm X should continue to operate in the short run, but firms Y and Z should shut down production.
- C. \$4.50, all firms should continue to operate in the short run, but exit the market in the long run if these conditions are expected to persist.

36. The following data pertain to the total output in units and average selling prices in an economy that produces only two products, X and Y:

Year	Product X		Product Y	
	Output (units)	Selling Price/unit	Output (units)	Selling Price/unit
2011	2,800	€9	2,000	€47
2012	3,000	€11	1,800	€52

If the implicit price deflator for GDP in 2011 was 100, for 2012 it is *closest* to:

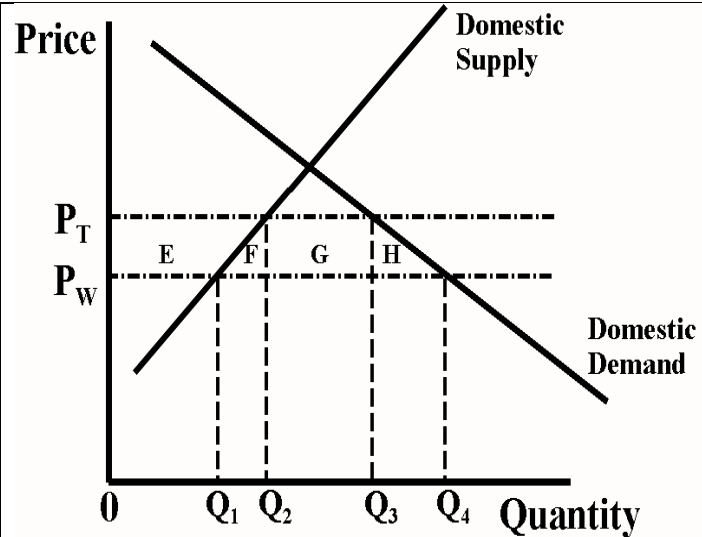
- A. 106.2.
 B. 106.8.
 C. 113.4.
37. Which of the following would be *most* useful as a leading indicator to signal the start of an economic recovery?
- A. An increase in aggregate real personal income (less transfer payments)
 B. A decrease in average weekly initial claims for unemployment insurance
 C. The narrowing of the spread between the 10-year Treasury yield and the federal funds rate.

38.

The diagram to the right shows the domestic demand and supply curves for a country that imports a commodity, where P_W is its world price and P_T is its domestic price after the imposition of a tariff.

The reduction in the net national welfare of this country as a result of the tariff is *best* described by the area(s):

- A. E.
 B. G.
 C. F+H.



39. The International Bank for Reconstruction and Development *most likely*:

- A. provides low interest rate loans to developing countries.
 B. lends foreign currencies on a temporary basis to address balance of payment issues.
 C. stands ready to lend foreign currencies to member countries during periods of significant external deficits.

40. An investor examines the following rate quotes for the Brazilian real and the Australian dollar:

Spot rate BRL/AUD	2.1128	BRL 1-year interest rate	4.1%
Forward rate BRL/AUD	2.1388	AUD 1-year interest rate	3.1%

If the investor shorts BRL500,000 he will achieve a risk-free arbitrage profit (in BRL) *closest* to:

- A. -6,327.
- B. 1,344.
- C. 6,405.

41. The demand and supply functions for a leading smartphone are furnished below:

$$Q_{sp}^d = 1,000 - 20P_{sp} + 2I; \quad Q_{sp}^s = -200 + 50P_{sp} - 80W; \quad \text{where,}$$

Q_{sp}^d = Quantity demanded in number of units

Q_{sp}^s = Quantity supplied in number of units

P_{sp} = Price per smart phone in \$

I = Household income in \$ per year

W = Wage rate in \$ per hour

Currently, the firm has priced the smartphone at \$250 per unit. If the wage is \$10 per hour and the household income is \$9,500 per year, the smartphone's equilibrium price is *closest* to:

- A. \$250.
- B. \$300.
- C. \$425.

42. A firm in a perfectly competitive environment has its total costs equal to total revenue and marginal costs greater than marginal revenue. Given this, which of the following strategies is *most* appropriate? The firm should:

- A. shut down in the short run and exit in the long run.
- B. increase its level of production to enter profit territory.
- C. decrease its level of production to enter profit territory.

43. The following data are for a basket of three consumption goods used to measure the rate of inflation:

Goods	December 2010		August 2011	
	Quantity	Price	Quantity	Price
5 lb bag sugar	150 bags	\$3.12	180 bags	\$2.92
5 lb bag flour	800 bags	\$2.18	750 bags	\$3.12
Frozen pizza (each)	250	\$2.90	250	\$3.00

Using the consumption basket for August 2011, the Paasche index is *closest* to:

- A. 123.7.
- B. 124.6.
- C. 125.4.

44. Which of the following is *most* consistent with real business cycle (RBC) models? The arguments and recommendations of RBC models suggest that:

- A. monetary variables have a major impact on GDP growth.
- B. persons are unemployed because their asking wages are too high.
- C. governments should intervene when the economy is in contraction.

Questions 45 through 68 relate to Financial Statement Analysis

45. The current ratio for an industry is 3.2. Data for a firm in the industry is presented below:

As at December 31	£ '000s
Cash	200
Accounts receivable	350
Inventory	1,250
Accounts payable	300
Taxes payable	200
Installment loan payable, due in three equal annual payments on June 30.	600

Using the current ratio, when compared with the industry, the firm is *best* described as being:

- A. as liquid.
- B. less liquid.
- C. more liquid.

46. A company operating in a highly fragmented and competitive industry reported an increase in ROE over the prior year. Which of the following reasons for the increase in ROE is *least likely* to be sustainable? The company:

- A. increased the prices of its product significantly.
- B. decided to make greater use of long-term borrowing capacity.
- C. implemented a new IT system allowing it to reduce working capital levels as a percentage of assets.

47. In 2011, a software company recorded unearned revenue related to a software license that it will recognize as revenue during 2012. Ignoring income taxes, this recognition of the software revenue will *most likely* have which of the following effects on cash from operations in 2012?

- A. No effect
- B. A decrease
- C. An increase

48. The following information for the current year is available for a company that prepares its financial statements in accordance with U.S. GAAP.

	in \$'000s
Revenue	7,000
Cost of goods sold	4,200
Other operating expenses	500
Restructuring costs	250
Interest expense	200

The company's operating profit (in \$000s) is *closest* to:

- A. 1,850.
- B. 2,050.
- C. 2,300.

49. Which of the following activities would an analyst *least likely* complete as part of the processing data phase of a financial analysis?

- A. Analyzing the prospects of the industry
- B. Preparing common-sized financial statement data
- C. Making adjustments for different accounting policies

50. Which of the following reports is *least likely* to be filed with the SEC?

- A. Form 10-K
- B. Annual report
- C. Proxy statement

51. An analyst is forecasting gross profit of the three following companies. He uses the five-year average gross margins and forecasts sales using an internal model.

- Company 1's products currently enjoy healthy margins because of its technological edge. New technologies typically replace old ones every two years in this industry.
- Company 2 has been offering the same products throughout the period, and the demand and cost structures for its products have not experienced any significant changes.
- Company 3 has recently restructured its product offerings focusing on high margin products only.

For which of the three companies will the forecast of gross profit be *most* reliable? Company:

- A. 1.
- B. 2.
- C. 3.

52. A company whose objective is to maximize income had spent \$1,000,000 for a machine with two significant components as indicated below. The machine is expected to have an overall useful life of 10 years and the company uses the straight line method of depreciation.

Component	Cost	Useful Life
A	\$500,000	10 years
B	\$500,000	5 years

The depreciation expense for the first year computed under IFRS compared with under U.S. GAAP will *most likely* be:

- A. the same.
- B. \$50,000 lower.
- C. \$50,000 higher.

53. Dividends received are *most likely* classified as which type of cash flow under both IFRS and U.S.GAAP?

- A. Investing
- B. Financing
- C. Operating

54. The following selected data are available for a firm:

	\$ millions
Net income	90.0
Non-cash charges	15.2
Interest expense	28.0
Capital expenditures	34.3
Working capital expenditures	13.0

If the firm's tax rate is 40%, the free cash flow to the firm (FCFF) is *closest* to:

- A. 57.9.
- B. 74.7.
- C. 87.7.

55. The following financial data is available for a company:

Return on assets (ROA)	4.8%
Total asset turnover	1.92

Financial leverage	1.75
Dividend payout ratio	48.1%

The company's sustainable growth rate is *closest* to:

- A. 4.00%.
- B. 4.40%.
- C. 4.78%.

56. During a period of rising inventory costs, a company decides to change its inventory method from FIFO to the weighted average cost method. Which of the following financial ratios will *most likely* increase as a result of this change?

- A. Current
- B. Debt-to-equity
- C. Number of days in inventory

57. Information about a company's planned capital expenditures is *most likely* found in the:

- A. proxy statement.
- B. notes to the financial statements.
- C. management discussion and analysis.

58. The following information is available about a company:

Contributed capital, beginning of the year	\$ 50,000
Retained earnings, beginning of the year	225,000
Sales revenues earned during the year	450,000
Investment income earned during the year	5,000
Total expenses paid during the year	402,000
Dividends paid during the year	10,000
Total assets, end of the year	800,000

Total liabilities at the end of the year are *closest* to:

- A. \$472,000.
- B. \$482,000.
- C. \$487,000.

59. According to the International Accounting Standards Board's Conceptual Framework for Financial Reporting, the two fundamental qualitative characteristics that make financial information useful are *best* described as:

- A. timeliness and accrual accounting.
- B. understandability and verifiability.

C. relevance and faithful representation.

60. Which of the following statements about balance sheets is *most* accurate? Under:

- A. U.S. GAAP, intangibles must be valued at historical cost.
- B. IFRS, a commercial real estate company should use a liquidity based presentation.
- C. IFRS, a classified balance sheet must present current assets before non-current assets.

61. A company recorded the following events in 2012:

	\$'000s
Purchase of securities for trading purposes	240
Proceeds from the sale of trading securities	300
Proceeds from issuance of bonds	500
Purchase of 30% of the shares of an affiliated company	275

On the 2012 statement of cash flows, the company's net cash flow from investing activities (in \$'000s) is *closest* to:

- A. -275.
- B. -215.
- C. 285.

62. Selected information for a company is provided below.

	\$ millions
Sales	4,800
Cost of goods sold	2,880
Purchases	2,940
Average receivables	625
Average inventory	710
Average payables	145

The company's cash conversion cycle (in days) is *closest* to:

- A. 84.
- B. 120.
- C. 138.

63. Select information from a company that uses the FIFO inventory method is provided below.

Event	Units	\$/Unit	Total (\$)
Opening inventory	1,000	7.50	7,500
Purchase	250	7.60	1,900
Sales	550	12.00	6,600

Purchase	300	7.70	2,310
Sales	<u>600</u>	12.00	7,200
Ending inventory	400		

If the company used a perpetual system versus a periodic inventory system, the gross margin would *most likely* be:

- A. lower.
- B. higher.
- C. the same.

64. A company, which prepares its financial statements according to IFRS, owns several investment properties on which it earns rental income. It values the properties using the fair value model based on prevailing rental markets. After two years of increases the market softened in 2012 and values decreased. A summary of the properties' valuations is as follows:

- Original cost (acquired in 2010) €50.0 million
- Fair value valuation as at December 31, 2010 €50.5 million
- Fair value valuation as at December 31, 2011 €54.5 million
- Fair value valuation as at December 31, 2012 €48.0 million

Which of the following *best* describes the impact of the revaluation on the 2012 financial statements?

- A. €6.5 million charge to net income
- B. €6.5 million charge to revaluation surplus
- C. €4.5 million charge to revaluation surplus and €2.0 million charge to net income

65. Which of the following statements *most* accurately describes a valuation allowance for deferred taxes? A valuation allowance is required under:

- A. IFRS on revaluation of capital assets.
- B. U.S. GAAP if there is doubt about recovering a deferred tax asset.
- C. both IFRS and U.S. GAAP on tax differences arising from the translation of foreign operations.

66. An analyst can *most* accurately identify a LIFO liquidation by observing a(n):

- A. increase in gross margin.
- B. decrease in the LIFO reserve.
- C. change in inventory out of line with change in sales.

67. Selected information about a company is as follows:

(\$ '000)	2011 December 31	2012 projection
Sales	2,200	2,500
Variable operating costs (% of sales)	28%	30%
Fixed operating costs	1,400	1,400
Tax rate	25%	25%
Dividends paid	55	60
Interest bearing debt at 5%	500	500

The forecasted net income (in '000s) for 2012 is *closest* to:

- A. \$169.
- B. \$202.
- C. \$244.

68. If a company chooses to capitalize an expenditure related to capital assets instead of expensing it, ignoring taxes, the company will *most likely* report:

- A. a lower cash flow per share in that period.
- B. a higher earnings per share in future periods.
- C. the same free cash flow to the firm in that period.

Questions 69 through 78 relate to Corporate Finance

69. Two mutually exclusive projects have the following cash flows (€) and internal rates of return (IRR):

Project	IRR	Year 0	Year 1	Year 2	Year 3	Year 4
A	27.97%	-2,450	345	849	635	3,645
B	28.37%	-2,450	345	849	1,051	3,175

Assuming a discount rate of 8% annually for both projects, the firm should *most likely* accept:

- A. both projects.
- B. Project A only.
- C. Project B only.

70. A company's asset beta is 1.2 based on a debt-to-equity ratio of 50%. If the company's tax rate increases, the associated equity beta will *most likely*:

- A. increase.
- B. decrease.
- C. remain unchanged.

71. Which date in the chronology of a dividend payment is *most likely* determined by a Securities Exchange? The:

- A. declaration date.
- B. ex-dividend date.
- C. holder-of-record date.

72. A firm's price-to-earnings ratio (P/E) is 12.5. The firm has decided to repurchase shares using external funds that have an after-tax cost of 9%. After the repurchase, the earnings per share (EPS) will *most likely*:

- A. increase.
- B. decrease.
- C. remain unchanged.

73. Which is *most likely* considered a "pull" on liquidity?

- A. Obsolete inventory
- B. Reduction in a line of credit
- C. Increased difficulty in collecting receivables

74. Based on best practices in corporate governance procedures, independent board members *most likely*:

- A. meet only in the presence of management.
- B. have a "lead" director when the board chair is not independent.
- C. hire independent consultants who are pre-approved by management.

75. The unit contribution margin for a product is \$12. Assuming fixed costs of \$12,000, interest costs of \$3,000, and a tax rate of 40%, the operating breakeven point (in units) is *closest to*:

- A. 750.
- B. 1,000.
- C. 1,250.

76. The effective annualized cost (%) of a banker's acceptance that has an all-inclusive annual rate of 5.25% for a one-month loan of \$2,000,000 is *closest to*:

- A. 5.27.
- B. 5.38.
- C. 5.54.

77. Which of the following is *most* consistent with the best practices of corporate governance?

- A. All stakeholders should have the right to participate in the governance of the firm.
- B. All committees within the firm should benefit from the direct guidance of management.
- C. Appropriate controls and procedures exist that cover management's activities in running the daily operations of the firm.

78. Which of the following is the *least* appropriate method for an external analyst to estimate a company's target capital structure for determining WACC? Using the:

- A. averages of comparable companies' capital structure.
- B. company's current capital structure, at book value weights.
- C. statements made by the company's management regarding capital structure policy.

Questions 79 through 90 relate to Equity Investments

79. Which of the following statements concerning regulatory bodies is *least* accurate? Regulatory bodies:

- A. act to level the playing field for market participants.
- B. help define minimum standards of practice for agents.
- C. require that regulated firms maintain optimum levels of capital.

80. A company has initiated the process of selling unproductive land representing 5% of its total assets and using the proceeds to buy back its common shares. Holding other factors constant, these actions by the company will *most likely* result in a:

- A. higher return on equity.
- B. higher operating margin.
- C. lower sustainable growth.

81. Which of the following is the *most* appropriate reason for using a free-cash-flow-to-equity (FCFE) model to value equity of a company?

- A. FCFE is a measure of the firm's dividend paying capacity.
- B. FCFE models provide more accurate valuations than the dividend discount models.
- C. A firm's borrowing activities could influence dividend decisions but they would not impact FCFE.

82. The following information is available about a company:

Next year's sales revenue	\$180 million
Next year's net profit margin	15%
Dividend payout ratio	60%
Dividend growth rate expected during Years 2 and 3	25%
Dividend growth rate expected after Year 3	5%
Investors' required rate of return	12%
Number of outstanding shares	8.1 million

The current value per share of the company's common stock according to the two-stage dividend discount model is *closest* to:

- A. \$39.36.
- B. \$49.20.
- C. \$51.20.

83. A trader buys 500 shares of a stock on margin at \$36 a share using an initial leverage ratio of 1.66. The maintenance margin requirement for the position is 30 percent. The stock price at which the margin call will occur is *closest* to:

- A. \$20.57.
- B. \$25.20.
- C. \$30.86.

84. Which of the following financial intermediaries are *most likely* to provide liquidity service to their clients?

- A. Dealers
- B. Brokers
- C. Exchanges

85. A trader places a limit order to buy shares at a price of \$49.94 with the stock trading at a market bid price of \$49.49 and the bid-ask spread of 0.7%. The order will *most likely* be filled at:

- A. \$49.49.
- B. \$49.84.
- C. \$49.94.

86. The financial systems that are operationally efficient are *most likely* characterized by:

- A. security prices that reflect fundamental values.
- B. the use of resources where they are most valuable.
- C. liquid markets with low commissions and order price impacts.

87. An investor gathers the following information for an index:

Value of the index as of December 31, 2012	1,000
Interest income over the year 2012	23.50
Dividend income over the year 2012	21.50
Total return of the index over the year 2012	-4.50%

The value of the index as of January 1, 2012 is *closest* to:

- A. 1,047.
- B. 1,070.
- C. 1,094.

88. After the public announcement of the merger of two firms an investor makes abnormal returns by going long on the target firm and short on the acquiring firm. This *most likely* violates which form of market efficiency?

- A. Semi-strong form only
- B. Weak and semi-strong forms
- C. Semi-strong and strong forms

89. An analyst gathers the following information about two companies in the same industry:

	Company A	Company B
Book value per share	\$20	\$10
Market price per share	\$22	\$13
Return on equity	16%	13%
Retention ratio	40%	60%

What is the *most* appropriate conclusion regarding investors' expectations? Compared to Company B, Company A has:

- A. higher intrinsic value as reflected by its higher market price.
- B. higher sustainable growth as reflected by its higher return on equity.
- C. lower future investment opportunities due to its lower price-to-book ratio.

90. An investor gathers the following data about a company:

Most recent year's dividend per share	\$1.47
Next year's estimate of earnings per share	\$4.00
Estimate of long-run return on equity (ROE)	15%
Estimate of long-run dividend payout ratio	40%
Investors' required rate of return	12%

The company's justified forward P/E is *closest* to:

- A. 10.0.
- B. 13.3.
- C. 20.0.

Questions 91 through 96 relate to Derivative Investments.

91. A corporation issues 5-year fixed-rate bonds. Its treasurer expects interest rates to decline for all maturities for at least the next year. She enters into a 1-year agreement with a bank to receive quarterly fixed-rate payments and to make payments based on floating rates benchmarked on 3-month LIBOR. This agreement is *best* described as a:

- A. swap.
- B. futures contract.
- C. forward contract.

92. A portfolio manager is required to sell 31,250 shares of XYZ Inc. in two months. She is concerned the price of XYZ shares will decline during the 2-month period, so she enters into a deliverable equity forward contract to sell 31,250 shares of XYZ in two months for EUR 160 per share. When the contract expires, XYZ is trading at EUR 138 per share. The portfolio manager will *most likely*:

- A. pay EUR 687,500 to the dealer.
- B. receive EUR 4,312,500 from the dealer.
- C. receive EUR 5,000,000 from the dealer.

93. A trader takes a long position in 40 futures contracts on Day 1. The futures have a daily price limit of \$5 and closes with a settlement price of \$106. On Day 2, the futures trade at \$111 and the bid and offer move to \$113 and \$115, respectively. The futures price remains at these price levels until the market closes. The marked-to-market amount the trader receives in his account at the end of Day 2 is *closest to*:

- A. \$200.
- B. \$280.
- C. \$320.

94. An investor is long an in-the-money American call option on a dividend paying stock. Would this option *most likely* ever be exercised early?

- A. No.
- B. Yes, if its time value is high enough.
- C. Yes, if it pays a high enough dividend.

95. A European company issues a 5-year euro-denominated bond with a face value of EUR 50,000,000. The company then enters into a 5-year currency swap with a bank to convert the EUR exposure into USD exposure. The notional principals of the swap are EUR 50,000,000 and USD 70,000,000. The European company pays a fixed rate of 5% and the bank pays a fixed rate of 4.5%.

Payments are made semiannually on a basis of 30 days per month and 360 days per year. What is the payment from the bank to the company at the end of year 4?

- A. USD 1,750,000.
- B. EUR 1,125,000.
- C. EUR 1,250,000.

96. An investor with \$5000 to invest believes that the price of ABC Corp. stock will appreciate by \$7 to \$95 in two months. The two-month at-the-money put on one share of ABC stock costs \$1.76, while the two-month at-the-money call costs \$1.56. In order to profit from his view on ABC stock, he will *most likely*:

- A. sell calls on shares of ABC.
- B. sell puts on shares of ABC.
- C. buy calls on shares of ABC.

Questions 97 through 108 relate to Fixed Income Investments.

97. If a bond's issuer is required to retire a specified portion of the issue each year, the bond *most likely*:

- A. is callable.
- B. is a step-up note.
- C. has a sinking fund provision.

98. One reason why the duration of a portfolio of bonds does not properly reflect that portfolio's yield curve risk is the duration measure:

- A. assumes all yields change by the same amount.
- B. assumes all the bonds have the same discount rate.
- C. ignores differences in coupon rates across the bonds.

99. Investor A's marginal tax rate is 45%, while Investor B's is 30%. Both investors are considering two bonds for inclusion in a taxable portfolio. One bond is tax-exempt with a yield of 4.50%, while the other is taxable with a yield of 6.30%. Which bond will each investor *most likely* choose?

- A. Both investors will choose the taxable bond.
- B. Both investors will choose the tax-exempt bond.
- C. Investor A will choose the tax-exempt bond and Investor B will choose the taxable bond.

100. The yield on a U.S. Treasury STRIPS security is also known as the Treasury:

- A. spot rate.
- B. yield spread.
- C. forward rate.

101. Consider a 5-year option-free bond that is priced at a discount to par value. Assuming the discount rate does not change, one year from now the value of the bond will *most likely*:

- A. increase.
- B. decrease.
- C. stay the same.

102. The market value of an 18-year zero-coupon bond with a maturity value of \$1,000 discounted at a 12% annual interest rate with semi-annual compounding is *closest to*:

- A. \$122.74.
- B. \$130.04.
- C. \$192.86.

103. All else equal, the difference between the nominal spread and the Z-spread for a non-Treasury security will *most likely* be larger when the:

- A. yield curve is flat.
- B. yield curve is steep.
- C. security has a bullet maturity rather than an amortizing structure.

104. Assume the following six-month forward rates (presented on an annualized, bond-equivalent basis) were calculated from the yield curve.

Notation	Forward Rate
${}_1f_0$	0.50%
${}_1f_1$	0.70%
${}_1f_2$	1.00%
${}_1f_3$	1.50%
${}_1f_4$	2.20%
${}_1f_5$	3.00%
${}_1f_6$	4.00%

The 3-year spot rate is *closest to*:

- A. 0.74%.
- B. 1.48%.
- C. 2.06%.

105. One advantage of the full valuation approach to measuring interest rate risk relative to the duration/convexity approach is that the full valuation approach:

- A. increases measurement accuracy.
- B. is easier to model than scenario analysis.
- C. requires the yield curve to change in a parallel fashion.

106. An analyst uses a valuation model to estimate the value of an option-free bond at 92.733 to yield 11%. If the value is 94.474 for a 60 basis point decrease in yield and 91.041 for a 60 basis point increase in yield, the effective duration of the bond is *closest* to:

- A. 1.85.
- B. 3.09.
- C. 6.17.

107. Which of the following is *least likely* to be a type of embedded option in a bond issue granted to bondholders? The right to:

- A. put the issue.
- B. call the issue.
- C. convert the issue.

108. The bonds issued by ALS Corp. are currently priced at 108.00 and are option free. Based on a portfolio manager's valuation model, a 10 basis points rise in interest rates will result in the bond price falling to 106.50 while a 10 basis points fall in interest rates will result in the bond price rising to 110.00. The market value of the portfolio manager's holdings of ALS bonds is \$2 million. The expected change in the market value of this holding for a 100 basis point change in interest rates will be *closest* to:

- A. \$124,000.
- B. \$322,600.
- C. \$645,200.

Questions 109 through 114 relate to Alternative Investments.

109. An alternative investments fund that employs leverage and takes long and short positions in securities is *most likely* a:

- A. hedge fund.
- B. venture capital fund.
- C. leveraged buyout fund.

110. If an investor uses derivatives to make a long investment in commodities, the return earned on margin is *best* described as:

- A. price return.
- B. collateral yield.
- C. convenience yield.

111. The *most likely* impact of adding commodities to a portfolio of equities and bonds is to:

- A. increase risk
- B. enhance return.
- C. reduce exposure to inflation.

112. The return on a commodity index is *likely* to be different from returns on the underlying commodities because:

- A. assets are not marked to market.
- B. data are subject to survivorship bias.
- C. indices are constructed using futures contracts.

113. Which of the following investments *most likely* provides an investor with indirect, equity exposure to real estate?

- A. Real estate investment trusts.
- B. Real estate limited partnerships.
- C. Commercial mortgage backed securities.

114. High Plains Capital is a hedge fund with a portfolio valued at \$475,000,000 at the beginning of the year. One year later, the value of assets under management is \$541,500,000. The hedge fund charges a 1.5% management fee based on the end-of-year portfolio value, and a 10% incentive fee. If the incentive fee and management fee are calculated independently, the effective return for a hedge fund investor is *closest* to:

- A. 10.89%.
- B. 11.06%.
- C. 12.29%.

Questions 115 through 120 relate to Portfolio Management.

115. Which of the following institutional investors are *most* likely to have a low tolerance for investment risk and relatively high liquidity needs?

- A. Insurance company
- B. Charitable foundation
- C. Defined benefit pension plan

116. An asset management firm generated the following annual returns in their U.S. large cap equity portfolio:

Year	Net Return (%)
2008	-34.8
2009	32.2
2010	11.1
2011	-1.4

The 2012 return needed to achieve a trailing five year geometric mean annualized return of 5.0% when calculated at the end of 2012 is *closest* to:

- A. 17.9%.
- B. 27.6%.
- C. 35.2%.

117. Consider a portfolio with two assets. Asset A comprises 25% of the portfolio and has a standard deviation of 17.9%. Asset B comprises 75% of the portfolio and has a standard deviation of 6.2%. If the correlation of these two investments is 0.5, the portfolio standard deviation is *closest* to:

- A. 6.45%.
- B. 7.90%.
- C. 9.13%.

118. An asset has an annual return of 19.9%, standard deviation of returns of 18.5%, and correlation with the market of 0.9.

If the standard deviation of returns on the market is 15.9% and the risk-free rate is 1%, the beta of this asset is *closest* to:

- A. 1.02.
- B. 1.05.
- C. 1.16

119. Which of the following performance measures *most likely* relies on systematic risk as opposed to total risk when calculating risk-adjusted return?

- A. M-squared
- B. Sharpe ratio
- C. Treynor ratio

120. A financial advisor gathers the following information about a new client:

- The client is a successful economics professor at a major university
- The client plans to work full time for seven years and then will work part time for 3 years before retiring
- The client owns two homes and does not have any outstanding debt
- The client has accumulated retirement savings of approximately \$ 2 million through their employer's retirement plan and will have anticipated retirement spending needs of \$60,000 per year
- The client reads numerous financial publications and follows markets closely
- While concerned about the current health of the global economy, the client maintains that he is a long-term investor

Based on the above information, which of the following *best* describes this client?

- A. low ability to take risk, but a high willingness to take risk
- B. high ability to take risk, but a low willingness to take risk
- C. high ability to take risk and a high willingness to take risk