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## Level I Version 1 2012 Sample Exam

1. Carlos Cruz, CFA, is one of two founders of an equity hedge fund. Cruz manages the fund's assets while the other co-founder, Brian Burkeman, is responsible for fund sales and marketing. Cruz notices that the most recent sales material used by Burkeman indicates the value of the assets under management in the fund is listed at a higher than actual value. Burkeman justifies the discrepancy by stating that the recent market decline accounts for the difference. To avoid violating the CFA Institute Standards of Professional Conduct, Cruz should *least likely* take which of the following actions?
  - A. Correct the asset information and provide the update to prospective clients.
  - B. Report the discrepancy to the Professional Conduct Program of CFA Institute.
  - C. Check with the firm's legal counsel to determine what action should be taken.
2. Linda Chin, CFA, is a member of a political group advocating lower governmental regulation in all aspects of life. She works in a country where local securities laws are minimal and insider trading is not prohibited. Chin's politics are reflected in her investment strategy, where she follows her country's mandatory legal and regulatory requirements. What steps should Chin *most likely* take to ensure she does not violate any CFA Institute Standards of Professional Conduct?
  - A. Continue current investment strategy.
  - B. Follow the CFA Institute Code and Standards.
  - C. Disclose to clients that she meets mandatory legal requirements.
3. Wouter Duyck, CFA, is the sole proprietor of an investment advisory firm serving a middle-class retail clientele. Duyck claims to be different from his competitors because he conducts his own independent research. Duyck has hundreds of clients. He fully discloses that to simplify the management of all these accounts he has created a recommended list of stocks, from which he selects investments for all of his clients. Duyck's recommended list of stocks is obtained from his primary broker, who has completed due diligence on each stock. Duyck's recommended list *least likely* violates which of the following CFA Institute Standards of Professional Conduct?
  - A. Fair Dealing.
  - B. Misrepresentation.
  - C. Diligence and Reasonable Basis.
4. Lisa Hajak, CFA, specialized in research on real estate companies at Cornerstone Bank (CB) for the past twenty years. Hajak recently started her own investment research firm, Hajak Advisory (HA). One of her former clients at CB asks Hajak to update a research report she wrote on a real estate company, when she was at CB. Hajak updates the report, which she had copied to her personal computer, without the bank's knowledge, and replaces references to the bank with her new firm, HA. Hajak incorporates the conclusions of a real estate study conducted by the Realtors Association that appeared in the Wall Street Journal. She references the Journal as her source in her report. She provides the revision free of charge along with a request for the bank's client to become a client of

her firm. Concerning the reissued research report, Hajak *least likely* violated the CFA Institute Standards of Professional Conduct because she:

- A. solicited the bank's client.
- B. did not obtain consent to use the bank report.
- C. must cite the actual source of the real estate study.

5. Tonya Tucker, CFA, is a financial analyst at BC Corporation (BC). BC has numerous subsidiaries and is actively involved in mergers and acquisitions. Tucker analyzes HR Corporation (HR) and tells the CEO of BC that the acquisition of HR would be a good fit for BC. After her discussion with CEO, Tucker purchases 100,000 shares of HR at \$200 per share. BC does not have any pre-clearance procedures, so the next time she meets the CEO, Tucker mentions she is a stockowner of HR. The CEO thanks her for his information but does not ask for any details. Two weeks later, Tucker sees a company-wide email from the CEO announcing BC's acquisition of HR for \$250 a share. Regarding her purchase of HR stock, Tucker *most likely* violated the CFA Institute Standards of Professional Conduct concerning:

- A. Loyalty.
- B. Market Manipulation.
- C. Material Nonpublic Information.

6. When a client asks her how she makes investment decisions, Petra Vogler, CFA, tells the client she uses the mosaic theory. According to Vogler, the theory involves analyzing public and nonmaterial nonpublic information, including evaluating statements made to her by company insiders in one-on-one meetings discussing management's new earnings projections not known to the public. She also gathers general industry information not known to the public from industry experts and other contacts. Vogler *most likely* violates the CFA Institute Standards of Professional Conduct because of her use of:

- A. Industry contact information.
- B. One-on-one meeting information.
- C. Non-material nonpublic information in her analysis.

7. Lin Liang, CFA, is an investment and an auto industry expert. Last month, Liang requested securities regulators to open an investigation into accounting irregularities at Road Rubber Company (RRC) despite having no basis for the request. Shortly before he spoke to the regulators, Liang shorted RRC stock for his clients. Once the regulators opened an investigation became public, the share price of RRC, immediately dropped 30%, Liang then covered the short positions and made \$5 per share for his clients. Liang *least likely* violated which of the CFA Institute Standards of Professional Conduct?

- A. Misconduct.
- B. Market Manipulation.
- C. Priority of Transactions.

8. Sanjay Gupta, CFA, has been hired by the First Faithful Church to manage the pension plan's equity portfolio. The plan trustees tell Gupta that stocks of companies involved in the sale of alcohol,

tobacco, gambling, or firearms are not acceptable investments, Gupta believes that he can reasonably execute his strategy with restriction. Does Gupta violate the CFA Institute Standards of Professional Conduct?

- A. No.
- B. Yes, because the restrictions provided in the guidelines are not in the best interest and objectives of the client.
- C. Yes, because Gupta should construct the portfolio with these limitations since he can execute on the strategy.

9. Jorge Lopez, CFA, is responsible for his bank's proxy voting on behalf of the bank's asset management clients. Lopez recently performed a cost-benefit analysis, showing that voting all proxies might not benefit the bank's clients. Based on this analysis, Lopez changes the proxy voting policies and procedures without informing anyone else of the change. Lopez now votes clients proxies on the side of management on all issues with the exception of major mergers where a significant impact on the stock price is expected. Lopez *least likely* violated the CFA Institute Standards of Professional Conduct?

- A. Cost-benefit analysis.
- B. Voting with management.
- C. Proxy voting policy disclosures.

10. 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.

11. A U.S. Treasury (T-bill) has 90 days to maturity and a bank discount yield of 3.25%. The effective annual yield (EAY) for the T-bill is *closest* to:

- A. 3.29%.
- B. 3.32%.
- C. 3.36%.

12. The following ten observations are a simple 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.

13. 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%.

14. In setting the confidence interval for the population mean of a normal or approximately normal distribution and given that the sample size is small, Student's t-distribution is preferred approach when the variance is:

- A. Known.
- B. Negative.
- C. Unknown.

15. A two-tailed test of the null hypothesis that the mean of a distribution is equal to 4.00 has a p-value of 0.0567. Using a 5% level of significance (i.e.,  $\alpha = 0.05$ ), the best conclusion is to:

- A. Reject the null hypothesis.
- B. Accept the null hypothesis.
- C. Increase the level of significance to 5.67%.

16. 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 points.

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

$$Q_{Pizza}^D = 11 - 0.70P_{Pizza} + 0.009I - 0.20P_{Cola}$$

$Q_{Pizza}^D$  is the number of pizzas ordered per month

where  $P_{Pizza}$  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 the pizza is \$5, and the price of a bottle 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. -1.42.
- C. -0.70.

18. Partial information on three baskets (1, 2, and 3) 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 claims that he is indifferent between baskets 2 and 3 and his indifference curves. 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.*

19. 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	<u>2,700</u>	<u>1,800</u>	<u>900</u>
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. \$3.00, 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.

20. The total output in units and average selling prices in a hypothetical economy producing only two products, X and Y, is provided below:

Year	Product X		Product Y	
	Output(units)	Selling Price/unit	Output(units)	Selling Price/unit
2010	2,800	€9	2,000	€47
2011	3,000	€11	1,800	€52

If the implicit price deflator for GDP in 2010 was 100, for 2011 it is *closest* to:

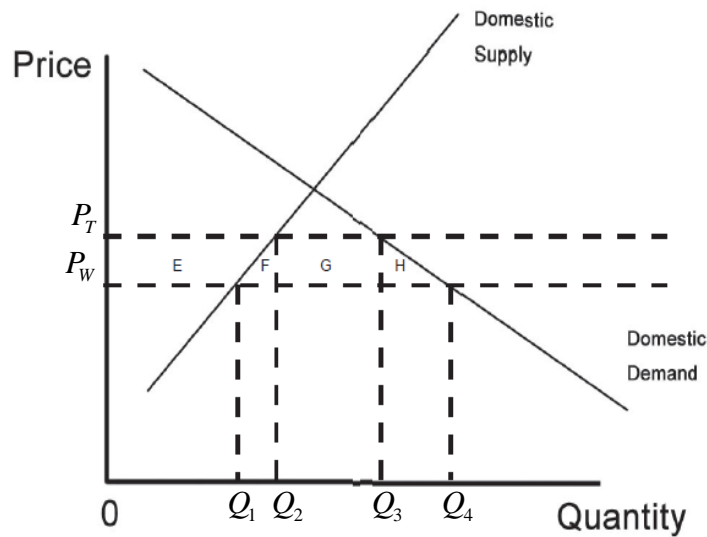
- A. 106.2.
- B. 106.8
- C. 113.4

21. In an economy, consumption is 70% of pre-tax income and the average tax rate is 25% of total income. If planned government expenditures are expected to increase by \$1.25 billion, the increase in total incomes and spending in billions, is closest to:

- A. \$1.3.

- B. \$2.6.  
C. \$4.2.

22.



The above diagram 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 next 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.

23. Information about management compensation and any potential conflicts of interest that may exist between management and shareholders is most likely found in the:

- A. Proxy statement.  
B. Notes to the financial statements.  
C. Management discussion and analysis.

24. 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
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

25. 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.

26. The following information is available from a company's according records:

	€ millions
Revenues for the year	12,500
Total expenses for the year	10,000
Gains from available-for-sale securities	1,475
Loss on foreign currency translation adjustments on a foreign subsidiary	325
	500

The company's total comprehensive income (in million) is *closest* to:

- A. €1,150.
- B. €3,150.
- C. €3,650.

27.

£ millions	2011	2010
Accounts receivables, gross	6,620	4,840
Allowance for doubtful accounts	92	56
Write-offs during the year	84	42

Based on the above information about a company, the bad debt expense (in millions)

For 2011 is *closest* to:

- A. £ 36.
- B. £ 84.
- C. £ 120.

28. An analyst has gathered the following information about a company:

	Cdn \$ millions
Cash flow from operating activities	105.9
Cash flow from investing activities	(11.8)
Cash flow from financing activities	<u>46.5</u>
Net change in cash for the year	140.6
Interest paid (included in CFO)	22.4
Taxes paid (tax rate of 30%)	18.0

Total debt, end of year	512.8
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The cash flow debt coverage ratio for the year is *closest* to:

- A. 20.6%
- B. 23.7%
- C. 27.4%

29. Which inventory method best matches the actual historical cost of the inventory sold With their physical flow if a company is using a perpetual inventory system?

- A. FIFO.
- B. LIFO.
- C. Specific identification.

30. On 1 January, a company, which prepares its financial statements according to IFRS, arranged financing for the construction of a new plant. The company:

- borrowed NZ\$5,000,000 at an interest rate of 8%.
- Issued NZ\$5,000,000 of preferred shares with a cumulative dividend rate of 6%,and
- During the first year of construction the company was able to temporarily invest NZ\$2,000,000 of the loan proceeds for the first six months and earned 7% on that amount.

The amount of financing costs to be capitalized (NZS) to the cost of the plant in the first years is *closest* to:

- A. 330,000.
- B. 400,000.
- C. 630,000.

31. 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 whether a deferred tax asset will be recovered.
- C. both IFRS and U.S. GAAP on tax differences arising from the translation of foreign operations.

32. A company had the following events related to \$5 million of 10-year bonds with a coupon rate of 8% payable semi-annually on 30 June and 31 December:

- Issued on 1 January 2005, when the market rate of interest was 6%.
- Bought back in an open market transaction on 1 January 2011, when the market rate of interest was 8%.

Which of the following statements *best* describes the effect of the bond repurchase on the financial statements for 2011? If the company uses the indirect method of calculating the cash from operations, there will be a:

- A. \$346,511 gain on the income statement.
- B. \$743,873 gain on the income statement.
- C. \$350,984 decrease in the cash from operations.



33. On a cash flow statement prepared using the indirect method, which of the following would most likely increase the cash from investing activities?
- A. Sale of a long-term receivable.
  - B. Sale of held-for-trading securities.
  - C. Securitization of accounts receivable.

34. 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.

35. 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
Project A	27.97%	-2,450	345	849	635	3,645
Project B	28.3%	-2,450	345	849	1,051	3,175

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

- A. both projects.
  - B. Project A only.
  - C. Project B only.
36. 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.
37. 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.
38. 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.
39. 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.

40. 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.

41. Which of the following statements is most accurate?

- A. Investors prefer to invest in callable common shares rather than puttable common shares.
- B. The issuing company is obligated to buy callable common shares at a predetermined price.
- C. Puttable common shares facilitate raising capital because of their appeal to investors over callable common shares.

42. An investor who wants to estimate the enterprise value multiple (EV/EBITDA) of a company has gathered the following data:

Market value of debt	\$10 million
Market capitalization	\$45 million
Cash and short-term investments	\$2.5 million
EBITDA	\$15 million
Firm's marginal tax rate	40%

The company's EV/EBITDA multiple is *closest to*:

- A. 2.5.
- B. 3.5.
- C. 5.8.

43. An investor gathers the following data to estimate the intrinsic value of a company's stock using the justified forward P/E approach.

Next year's earnings per share	\$3.00
Return on equity	12.5%
Dividend payout ratio	60%
Required return on shares	10%

The intrinsic value per share is *closest to*:

- A. \$36.
- B. \$48.
- C. \$72.

44. A company's series B, 8% preferred stock with a par value of \$50 pays quarterly dividends. Its current market value is \$35. The shares are retractable (at par) with the retraction date set for three years from today. Similarly rated preferred issues have an estimated nominal required rate of return

of 12%. Analysts expect a sustainable growth rate of 4% for the company's earning. The intrinsic value estimate of a share of this preferred issue is closest to:

- A. \$33.33.
  - B. \$45.02.
  - C. \$52.00.
45. Which of the following multiples is most useful when comparing with significant differences in capital structure?
- A. EV/EBITDA.
  - B. Price-to-book ratio.
  - C. Price-to-cash flow ratio.
46. 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.
47. A portfolio manager is required to sell 31,250 shares of XYZ Inc. in two months. She is concerned that the price of XYZ will decline during the 2-month period, so she enters into a deliverable equity forward contract to sell 31,250 shares of XYZ in 2 months for EUR160 per share. When the contract expires, XYZ is trading at EUR138 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.
48. A trader takes a long position in 40 futures contracts on Day 1. The futures have a price limit of \$5 and settle at \$106. On Day 2, the futures trade at \$111 and the bid and offer move to \$113 and \$115, respectively. The futures remain at these price levels until the market closes. What marked-to-market value does the trader receive in his account for Day 2?
- A. \$220.
  - B. \$280.
  - C. \$320.
49. U.S. farmers become concerned that the future supply of wheat production would exceed demand. Their hedging activities would most likely drive which market condition?
- A. Contango.
  - B. Full carry.
  - C. Backwardation.

50. An apartment building currently being marketed has the following financial characteristics:

	<b>Annual Figures</b>
Gross potential rental income	\$625,000
Estimated vacancy and collection losses	3.75%
Insurance and taxes	\$65,000
Utilities	\$27,000
Repairs and maintenance	\$62,000
Depreciation	\$55,000
Interest rate on proposed financing	6.5%
Average market cap rate	8.5%

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

- A. \$5,265,400.
- B. \$5,541,200.
- C. \$6,400,000.

51. An investor contributes £2,500,000 to a new venture capital project that is expected to earn £7,500,000 at the end of year 5 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:	0.35	0.20	0.15	0.15	0.15

If the cost of capital for the JV is 12%, the project's expected NPV is *closest to*:

- A. -£560,674.
- B. -£1,140,964.
- C. -£1,701,638.

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

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

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

54. 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.

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

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

56. A 4-year amortizing security with a par value of \$5,000 and a coupon rate of 7% has an expected cash flow of \$1,476 per year, assuming no principal prepayments. Assuming a discount rate of 5%, the present value of this security is closest to:

- A. \$5,234.
- B. \$5,355.
- C. \$9,347.

57. 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.

58. Which of the following is least likely a part of the execution step of the portfolio management process?

- A. Security analysis.
- B. Portfolio construction.
- C. Performance measurement.

59. The correlation between the historical returns of Stock A and Stock B is 0.75. If the variance of Stock A is 0.16 and the variance of Stock B is 0.09, the covariance of returns of Stock A and Stock B is closest to:

- A. 0.01.
- B. 0.09.
- C. 0.16.

60. The point of tangency between the Capital Allocation Line (CAL) and the efficient frontier of risky assets most likely identifies the:

- A. optimal risky portfolio.
- B. optimal investor portfolio.
- C. global minimum-variance portfolio.

