Level 1 Mock Exam_Part 2 答案详细解答

1. According to the *Standards of Practice Handbook*, members must keep information about clients confidential unless the client:

Select exactly 1 answer(s) from the following:

- **A.** is deceased.
- **B.** left for another firm.
- C. has not yet signed a contract.
- **D.** is involved in illegal activities.
- 1 Correct answer is **D**

Guidance for Standards I-VII, Standards of Practice Handbook 2008 Modular Level I, Vol. 1, p. 67 Study Session 1-1-c explain the ethical responsibilities required by the Code and Standards, including the multiple subsections of each Standard According to Standard III(E), members must keep information about current, former, and prospective clients confi dential unless the information concerns illegal activities on the part of the client.

2. Dolores Bridgestone, CFA, manages small-cap portfolios for institutional clients. Bridgestone is convinced, given the deteriorating economic conditions, that as a group, small-cap equities will underperform during the next 12-24 months. To preserve her client's wealth, Bridgestone sells what she considers to be the most vulnerable small-cap equities. After considerable research, she buys large-cap equities that she believes are better positioned to weather the expected economic downturn. Has Bridgestone violated any CFA Institute Standards of Professional Conduct?

Select exactly 1 answer(s) from the following:

- A. No.
- **B.** Yes, relating to suitability.
- C. Yes, relating to loyalty, prudence, and care.
- **D.** Yes, relating to diligence and reasonable basis.
- 2 Correct answer is B

Guidance for Standards I-VII, Standards of Practice Handbook 2008 Modular Level I, Vol. 1, pp. 60-62 Study Session 1-2-b According to Standard III(C), members who are responsible for managing a portfolio to a specifi c mandate, strategy, or style, must only make investment recommendations or take investment actions that are consistent with the stated objectives and constraints of the portfolio.

3. According to the *Standards of Practice Handbook*, a supervisor establishing procedures to eliminate conflicts of interest relating to personal trading would *least likely* recommend requiring:

Select exactly 1 answer(s) from the following:

- **A.** disclosure of holdings.
- **B.** preclearance procedures.
- C. a ban on employee investments.
- **D.** duplicate confirmations of employee transactions.
- 3 Correct answer is C

Guidance for Standards I-VII, Standards of Practice Handbook 2008 Modular Level I, Vol. 1, p. 97 Study Session 1-2-c recommend practices and procedures designed to prevent violations of the Code of Ethics and Standards of Professional Conduct Banning employee investments is not recommended. According to Standard VI(B), investment transactions for clients and employers must have priority over investment transactions in which a member or candidate is the beneficial owner. Recommended procedures for compliance with this Standard include establishing reporting procedures for investment personnel. Recommended reporting requirements include disclosure of holdings; preclearance procedures; and duplicate confirmations of employee transactions. These reporting requirements are recommended for monitoring and enforcing procedures established to eliminate conflicts of interest relating to personal trading.

4. Which of the following may claim compliance with the Global Investment Performance Standards (GIPS)?

Select exactly 1 answer(s) from the following:

- A. Financial planners.
- **B.** Portfolio managers.

- C. Portfolio consultants.
- **D.** Asset management firms.
- 4 Correct answer is **D**

Introduction to the Global Investment Performance Standards (GIPS)

2008 Modular Level I, Vol. 1, p. 120

Study Session 1-3-a

explain why the GIPS standards were created, what parties the GIPS

standards apply to, and who is served by the standards

Only investment management firms that actually manage assets can claim compliance with the standards.

Compliance is a

firm-wide process that cannot be achieved on a single product, portfolio, or composite.

5. The Global Investment Performance Standards (GIPS) were created to:

Select exactly 1 answer(s) from the following:

- A. provide GIPS-compliant firms with a competitive edge.
- **B.** educate investors on misleading practices in performance measurement.
- **C.** ensure fair representation and full disclosure of performance information.
- **D.** impose CFA Institute Standards of Professional Conduct on nonmembers.
- 5 Correct answer is C

Introduction to the Global Investment Performance Standards (GIPS)

2008 Modular Level I, Vol. 1, pp. 119-120

Study Session 1-3-a

explain why the GIPS standards were created, what parties the GIPS standards apply to, and who is served by the standards In the past, the investment community had great difficulty making meaningful comparisons on the basis of accurate investment performance data. The GIPS standards ensure fair representation and full disclosure of performance information.

6. According to the *Standards of Practice Handbook*, members are *least likely* required to disclose to clients their:

Select exactly 1 answer(s) from the following:

- A. service as directors.
- **B.** beneficial ownership of stock.
- C. firm's market-making activities.
- **D.** responsibilities as CFA charterholders.
- 6 Correct answer is **D**

Guidance for Standards I-VII, Standards of Practice Handbook

2008 Modular Level I, Vol. 1, p. 90

Study Sessions 1-1-c, 1-2-b

explain the ethical responsibilities required by the Code and Standards, including the multiple subsections of each Standard; distinguish between conduct that conforms to the Code and Standards and conduct that violates the Code and the Standards Members are not required to disclose their responsibilities as CFA charterholders to clients. They are, however, required to disclose all matters that could reasonably be expected to impair their independence and objectivity or interfere with respective duties to their clients, prospective clients, and employer. Service as a director, market-making activities, and beneficial ownership of stock are three examples of such matters.

7. According to the *Standards of Practice Handbook*, a member with supervisory responsibilities violates the CFA Institute Standards of Professional Conduct when:

Select exactly 1 answer(s) from the following:

- **A.** delegating supervisory duties.
- **B.** failing to prevent violations of the law.
- C. failing to prevent violations of the CFA Code and Standards.
- **D.** failing to establish and implement written compliance procedures.
- 7 Correct answer is **D**

Guidance for Standards I-VII, Standards of Practice Handbook

2008 Modular Level I, Vol. 1, pp. 76-78

Study Sessions 1-1-c, 1-2-b

explain the ethical responsibilities required by the Code and Standards, including the multiple subsections of each Standard; distinguish between conduct that conforms to the Code and Standards and conduct that violates the Code and the Standards Members with supervisory responsibility must make reasonable efforts to detect violations of laws, rules, regulations, and the Code and Standards. They exercise reasonable supervision by establishing and implementing written compliance procedures.

8. Rachel Pederson, CFA, has managed the account of Olga Stefansson for the past decade and has a very good relationship with her client. Stefansson has a beach house in the Bahamas and offers Pederson and her family two free weeks at the house as a reward for the excellent returns generated in her account. Pederson is so busy at work she does not tell anyone where she is going for vacation. When accepting Stefansson's offer, Pederson *least likely* violates the CFA Institute Standard relating to:

Select exactly 1 answer(s) from the following:

- **A.** Loyalty to Employer.
- **B.** Disclosure of Conflicts.
- C. Independence and Objectivity.
- D. Additional Compensation Arrangements.
- 8 Correct answer is **D**

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 15-16, 83, 91, 113

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 21-22, 69, 75, 89

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

The Standards require that members not accept gifts or compensation that might reasonably compete with their employer's interest unless they obtain written consent from all parties involved. Arrangements such as that offered to Pederson may cause a conflict of interest or result in partiality that could impede Pederson's independence and objectivity.

9. Vera Abel, CFA, is the research director for ZigZag Investments. Abel discovers one of her top analysts trading in stocks in advance of client transactions and repeatedly warns him that this activity is not appropriate. Does Abel violate any CFA Institute Standards of Professional Conduct?

Select exactly 1 answer(s) from the following:

- A. No.
- **B.** Yes, with respect to fair dealing.
- **C.** Yes, with respect to responsibilities of supervisors.
- **D.** Yes, with respect to diligence and reasonable basis.
- 9 Correct answer is **C**

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 93-94

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 76-77

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

The Standards require that members make reasonable efforts to detect and prevent violations of applicable laws, rules, and regulations. Supervisors exercise reasonable supervision by establishing and implementing written compliance procedures and ensuring the procedures are followed through periodic review. Once a supervisor learns of a possible violation, the supervisor must promptly initiate an investigation. Warning the employee to cease the activity, as Abel has done, is not enough. Pending the outcome of the investigation, Abel may need to place limits on the employee's activities to ensure the violations will not be repeated.

10. After work each day, Shinichi Takada, CFA, runs a popular Internet blog where he comments on micro-cap stocks. The blog includes a bio of Takada with his education and employment history. He receives no compensation for the blog. On the blog,

Takada recommends purchases and sales of stocks based upon astrology. When blogging, Takada least likely violates CFA Institute Standard relating to:

Select exactly 1 answer(s) from the following:

- A. Fair Dealing.
- **B.** Duty to Employer.
- C. Loyalty, Prudence, and Care.
- **D.** Diligence and Reasonable Basis.

10 Correct answer is A

Guidance for Standards I-VII, Standards of Practice Handbook

2008 Modular Level I, Vol. 1, pp. 50-53, 69-70, 80-81

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

Takada's use of astrology as a research methodology violates the Standards relating to Loyalty, Prudence, and Care as well as Diligence and Reasonable Basis. His research methodology and blog may also reflect poorly on his employer and cause the employer harm. Takada is least likely to violate the Standard relating to Fair Dealing because the blog is a method of mass communication that makes Takada's investment recommendations available to all readers simultaneously.

11. Jimmi Alvarez, CFA, is the founder of an investment advisory firm serving high net worth investors. For the past decade, Alvarez has invested his clients' money in mid-cap stocks. After much research, Alvarez determines that small-cap stocks are undervalued and moves a portion of all of his clients' assets into these stocks. Alvarez plans to inform his clients of this change with their year-end statements in three months. Has Alvarez violated any CFA Institute Standards?

Select exactly 1 answer(s) from the following:

- A. No.
- **B.** Yes, with respect to misrepresentation.
- C. Yes, with respect to diligence and reasonable basis.
- **D.** Yes, with respect to communication with clients and prospective clients.
- 11 Correct answer is **D**

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 105-107

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 84-85

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

According to the Standards, members must promptly disclose to clients any changes to their investment process. Alvarez should notify his clients promptly of the change in his investment process and strategy.

12. Scott Campbell, CFA, develops a complex quantitative model for**Select**ing mortgage bonds. Campbell is careful to document in writing all assumptions in the model and his reasoning for the assumptions. Another firm offers Campbell a position leading the startup of a mortgage bond research department. In his new position, Campbell creates a similar model and supporting documents. Does Campbell violate any CFA Institute Standards?

Select exactly 1 answer(s) from the following:

- A. No.
- **B.** Yes, with respect to record retention.
- **C.** Yes, with respect to loyalty to employer.
- **D.** Yes, with respect to preservation of confidentiality.

12 Correct answer is A

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 83-89, 111

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 70-74, 88

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and

Standards to specific situations presenting multiple issues of questionable professional conduct

The Standards do not impose a prohibition on the use of experience or knowledge gained at one employer from being used at another employer. Because records created on behalf of an employer are the property of the firm and not the member, Campbell must take care not to use the property or records of his former employer when creating a model for his new employer.

13. Romar Brockman, CFA, is a sell-side analyst. Approximately half of Brockman's compensation comes from his firm's investment-banking division. Brockman is asked to write a report about Anacortes Concrete (AC), an investment-banking client. Despite concerns about the slowdown in concrete demand, Brockman issues a very positive report on AC. When issuing his report, Brockman *least likely* violates the CFA Institute Standard relating to:

Select exactly 1 answer(s) from the following:

- A. Loyalty to Employer.
- **B.** Disclosure of Conflicts.
- C. Loyalty, Prudence, and Care.
- **D.** Independence and Objectivity.
- 13 Correct answer is A

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 113-115

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 89-91

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

The Standards require members to put client interests ahead of member and employer interests. Because Brockman's compensation is dependent upon investment banking revenues, Brockman may not be objective. When issuing the report, he is in jeopardy of violating Standards relating to Independence and Objectivity; Loyalty, Prudence, and Care; and Disclosure of Conflicts.

14. Eric Pantoja is enrolled as a candidate in the CFA examination program. He works as an assistant for Chehalis Investments (CI). Pantoja sees CI's purchase list and purchases several of the recommended stocks. Pantoja *least likely* violates the CFA Institute Standard relating to:

Select exactly 1 answer(s) from the following:

- A. Misconduct.
- **B.** Loyalty to Employer.
- C. Priority of Transactions.
- **D.** Diligence and Reasonable Basis.
- 14 Correct answer is **D**

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 121-122

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 36, 70, 81, 94-95

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

Pantoja least likely violates the Standard relating to Diligence and Reasonable Care because he is taking investment actions on his own behalf rather than on behalf of clients. His actions violate the Standards relating to Priority of Transactions (he trades ahead of his employer and its clients), Loyalty to Employer (his actions cause harm to his employer), and Misconduct (his actions reflect adversely on his professional integrity).

15. Fred Brubacher, CFA, is an analyst at Van City Bank (VCB). Brubacher receives compensation for referrals to the bank's brokerage and personal financial-planning divisions. His recent referrals are long-time clients from his previous employer, and Brubacher does not mention VCB's referral arrangement. Does Brubacher violate any CFA Institute Standards?

Select exactly 1 answer(s) from the following:

- A. No.
- **B.** Yes, with respect to suitability.
- C. Yes, with respect to misrepresentation.
- **D.** Yes, with respect to conflicts of interest.

15 Correct answer is **D**

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 127

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 99

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

Compensation or other benefits received for the recommendation of products or services represents a conflict of interest.

According to the Standards, Brubacher must disclose the referral fee arrangement.

16. Hailey Donnelly works long hours as an investment analyst and is studying for Level I of the CFA Examination. She is concerned that she is not adequately prepared for the exam. Desperate to pass, Donnelly writes several formulas on a small piece of paper which she takes into the examination room. During the exam Donnelly realizes that she does not need the formulas. Has Donnelly violated any CFA Institute Standards?

Select exactly 1 answer(s) from the following:

- A. No.
- **B.** Yes, with respect to fair dealing.
- C. Yes, with respect to duty to employer.
- **D.** Yes, with respect to responsibilities as a CFA Candidate.
- 16 Correct answer is **D**

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), p. 131

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 101-102

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

Candidates must not participate in any conduct which compromises the reputation or integrity of the CFA Examination.

17. Abigail Unger, CFA, is a portfolio manager at Cascade Investments (CI). After thoroughly researching mortgage-backed securities and checking client investment objectives for appropriateness, Unger purchases two of the bonds for several clients. Following steep declines in the mortgage-backed securities, several clients complain to CI, claiming the bonds were unsuitable investments. Has Unger violated any CFA Institute Standards?

Select exactly 1 answer(s) from the following:

- A. No.
- **B.** Yes, with respect to suitability.
- C. Yes, with respect to misconduct.
- **D.** Yes, with respect to diligence and reasonable basis.

17 Correct answer is A

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), pp. 25-27, 33, 69-71

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 29-30, 35, 60-62

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

Unger exercised diligence in her research; had a reasonable basis for the investment; and confirmed the suitability of the investment for her clients. Her actions were consistent with the Standards of Professional Conduct.

18. A. L. Guzdar is a portfolio manager at Woodstock Investments (WI). Guzdar manages a billion-dollar hedge fund and two large mutual funds. Market declines cause significant losses for all of the accounts. Unable to find bids for certain thinly-traded stocks, Guzdar trades the stocks between the accounts to provide liquidity and pricing. Guzdar *least likely* violates the CFA Institute Standard relating to:

Select exactly 1 answer(s) from the following:

- A. Misconduct.
- **B.** Misrepresentation.
- C. Market Manipulation.
- **D.** Loyalty, Prudence, and Care.

18 Correct answer is **D**

Standards of Practice Handbook, 9th edition (CFA Institute, 2005), p. 49

Standards I-VII

2008 Modular Level I, Vol. 1, pp. 31, 36, 47, 50

Study Session 1-2-a

demonstrate a thorough knowledge of the Code of Ethics and Standards of Professional Conduct by applying the Code and Standards to specific situations presenting multiple issues of questionable professional conduct

Guzdar least likely violates the Standard relating to Loyalty, Prudence, and Care as he attempted to provide liquidity to his clients. However, Guzdar's actions inflate trading volumes and distort prices and thus violate the Standard relating to Market Manipulation. Guzdar violates the Standard relating to Misconduct because market manipulation reflects adversely on his professional integrity. Guzdar may also violate the Standard relating to Misrepresentation if he misrepresents the actual liquidity and value of the stocks held in the portfolios.

19. A money manager has \$1,000,000 to invest for one year. She has identified two alternative one-year certificates of deposit (CD) shown below:

	Compounding frequency	Annual interest rate
CD1	Quarterly	8.00%
CD2	Continuously	7.95%

Which CD has the highest effective annual rate (EAR) and how much interest will it earn?

Highest EAR Interest earned

A.	CD1	\$81, 902
B.	CD1	\$82, 432
C.	CD2	\$82, 746
D.	CD2	\$83, 287

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

19 Correct answer is C

"The Time Value of Money," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 179-183

Study Session 2-5-c

calculate and interpret the effective annual rate, given the stated annual interest rate and the frequency of compounding, and solve time value of money problems when compounding periods are other than annual

The effective annual rate (EAR) and interest earned on the alternative investments is:

Quarterly: EAR = (1.02)4 - 1 = 1.082432 - 1 = 0.082432 = 8.2432%

Interest = $1,000,000 \times 8.2432\% = \$82,432$

Continuous:EAR =

e0.0795x1 = 1.082746 = 8.2746%Interest = \$1,000,000 x 8.2746% = \$82,746

Therefore, the CD paying 7.95% compounded continuously offers the highest effective annual rate. Note that the EAR is the same concept as the effective annual yield (EAY) presented in Reading 6.

20. Jorge MacDonald is shopping for a home. His budget will support a monthly payment of \$1,300 on a 30-year mortgage with an annual interest rate of 7.2%. If MacDonald puts a 10% down payment on the home, the most he can pay for his new home is *closest* to:

Select exactly 1 answer(s) from the following:

- A. \$189,755.
- **B.** \$191,518.
- C. \$210,840.
- **D.** \$212,800.

20 Correct answer is **D**

"The Time Value of Money," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 190-208

Study Session 2-5-d, e

calculate and interpret the future value (FV) and present value (PV) of a single sum of money, an ordinary annuity, an annuity due, a perpetuity (PV only), and a series of unequal cash flows;

draw a time line, specify a time index, and solve time value of money applications (for example, mortgages and savings for college tuition or retirement)

MacDonald's budget will support a monthly payment of \$1,300. Given a 30-year mortgage at 7.2%, the loan amount will be \$191,517.76 (N = 360, %I = 0.6, PMT = 1,300, solve for PV). If MacDonald makes a 10% down payment, then the most he can pay for his new home = $$191,517.76 / (1 - 0.10) = $212,797.51 \approx $212,800$.

21. It is *least* appropriate to use the internal rate of return (IRR) rule to differentiate between mutually exclusive projects when either the projects' scale or cash flow timing, respectively, is:

	Scale of the projects	Cash flow timing
A.	Similar	Similar
B.	Similar	Different
C.	Different	Similar
D.	Different	Different

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

21 Correct answer is **D**

"Discounted Cash Flow Applications," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 219-221

Study Session 2-6-a

calculate and interpret the net present value (NPV) and the internal rate of return (IRR) of an investment, contrast the NPV rule to the IRR rule, and identify problems associated with the IRR rule

The IRR rule should not be used to differentiate between mutually exclusive projects if the scale of the projects differs or if the timing of the projects' cash flows differs.

22. An analyst gathered the following information about a common stock investment:

	Date	Amount
Stock purchase (1)	15 January 2006	€86.00
Stock purchase (1)	15 January 2007	€94.00

Stock sale (2@106)	15 January 2008	€212.00

The stock does not pay a dividend. The money-weighted and time-weighted rates of return on the investment are *closest* to:

	Money-weighted	Time-weighted
	rate of return	rate of return
A.	11.02%	8.53%
B.	11.02%	11.02%
C.	11.60%	8.53%
D.	11.60%	11.02%

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

22 Correct answer is **D**

"Discounted Cash Flow Applications," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 222-225

Study Session 2-6-c

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

The money-weighted rate of return is the IRR based on the cash flows related to the investment. In this case, a cash outflow of \in 86 occurs at t=0, another outflow of \in 94 occurs at t=1, and an inflow of \in 212 occurs at t=2. Using a financial calculator, the IRR of these cash flows is 11.60%.

The time-weighted rate of return is the geometric mean of the annual rates of return in the stock irrespective of the amounts invested in the various time periods. The rate of return for the first period is (94 - 86) / 86 = 9.3023% and for the second period is (106 - 94) / 94 = 12.7660%. The geometric mean is $(1.093023 \times 1.127660)0.5 - 1 = 11.02\%$.

23. An analyst gathered the price-earnings ratios (P/E) for the firms in the S&P 500 and then ranked the firms from highest to lowest P/E. She then assigned the number 1 to the group with the lowest P/E ratios, the number 2 to the group with the second lowest P/E ratios, and so on. The measurement scale used by the analyst is *best* described as:

Select exactly 1 answer(s) from the following:

- A. ratio.
- **B.** ordinal.
- C. interval.
- **D.** nominal.
- 23 Correct answer is A

"Statistical Concepts and Market Returns," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 242-243

Study Session 2-7-a

differentiate between descriptive statistics and inferential statistics, between a population and a sample, and among the types of measurement scales

The analyst is using an ordinal scale which involves sorting data into categories based on some characteristic, such as the firms' P/E ratios.

24. Using Chebyshev's inequality, what is the minimum proportion of observations from a population of 500 that must lie within two standard deviations of the mean, regardless of the shape of the distribution?

Select exactly 1 answer(s) from the following:

- **A.** 71%.
- **B.** 75%.
- C. 89%.
- **D.** 99%.

24 Correct answer is **B**

"Statistical Concepts and Market Returns," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 289-291

Study Session 2-7-g

calculate and interpret the proportion of observations falling within a specified number of standard deviations of the mean, using Chebyshev's inequality

Chebyshev's inequality holds for any distribution, regardless of shape, and states that the minimum proportion of observations located within k standard deviations of the mean is equal to 1 - 1/k2. In this case, k = 2 and 1 - 1/4 = 0.75 or 75%.

25. If a distribution exhibits positive skewness, then the mean *most likely* is located to the:

Select exactly 1 answer(s) from the following:

- A. left of both the median and mode.
- **B.** right of both the median and mode.
- **C.** left of the median and right of the mode.
- **D.** right of the median and left of the mode.
- 25 Correct answer is B

"Statistical Concepts and Market Returns," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 297-302

Study Session 2-7-i

define and interpret skewness, explain the meaning of a positively or negatively skewed return distribution, and describe the relative locations of the mean, median, and mode for a nonsymmetrical distribution

A positively skewed distribution has a long tail to the right with a large frequency of observations occurring in the left part of the distribution. For a distribution of returns, this means frequent small losses and a few extreme gains. The result is that the extreme gains pull the mean to the right while the mode resides on the left with the bulk of the observations. The median falls between the mean and the mode.

26. The manager of a pension fund determined that during the past five years 85% of the stocks in the portfolio have paid a dividend and 40% of the stocks have announced a stock split. If 95% of the stocks have paid a dividend and/or announced a stock split, the joint probability of a stock paying a dividend and announcing a stock split is *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** 10%.
- **B.** 30%.
- C. 45%.
- **D.** 55%.

26 Correct answer is B

"Probability Concepts," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 325-326

Study Session 2-8-e

calculate and interpret 1) the joint probability of two events, 2) the probability that at least one of two events will occur, given the probability of each and the joint probability of the two events, and 3) a joint probability of any number of independent events

The probability that at least one of two events will occur is the sum of the probabilities of the separate events less the joint probability of the two events.

P(A or

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B) = P(A) + P(B) - P(AB)
95% = 85% + 40% - P(AB); therefore P(AB) = 30\%
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27. Which of the following statements about a normal distribution is *least* accurate? A normal distribution:

Select exactly 1 answer(s) from the following:

- **A.** has a skewness of zero.
- **B.** has an excess kurtosis of 3.
- C. is completely described by two parameters.

D. can be the linear combination of two or more normal random variables.

27 Correct answer is B

"Common Probability Distributions," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 389-390

Study Session 2-9-f

explain the key properties of the normal distribution, distinguish between a univariate and a multivariate distribution, and explain the role of correlation in the multivariate normal distribution

A normal distribution has a kurtosis of 3. Its excess kurtosis (kurtosis - 3.0) equals zero.

28. A portfolio manager gathered the following information about four possible asset allocations:

1 0		1
Allocation	Expected annual return	Standard deviation of
		<u>return</u>
A	13%	6%
В	25%	14%
С	18%	17%
D	32%	20%

The manager's client has stated that her minimum acceptable return is 8%. Based on Roy's safety-first criterion, the *most* appropriate allocation is:

Select exactly 1 answer(s) from the following:

- A. AllocationA.
- B. AllocationB.
- C. AllocationC.
- D. Allocation D.

28 Correct answer is B

"Common Probability Distributions," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 397-399

Study Session 2-9-i

define shortfall risk, calculate the safety-first ratio, and **Select** an optimal portfolio using Roy's safety-first criterion Roy's safety-first ratio = $[E(RP) - RL] / \sigma P$

with the optimal portfolio having the highest ratio. The safety-first ratios for

the four allocations are:

Allocation	Safety-first ratio
A	0.83
В	1.21
C	0.59
D	1.20

29. An analyst gathered the following information:

Sample mean	12%
Sample size	50
Sample variance	32

The standard error of the sample mean is *closest* to:

Select exactly 1 answer(s) from the following:

A. 0.47%.

B. 0.64%.

C. 0.80%.

D. 2.67%.

29 Correct answer is C

"Sampling and Estimation," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 428-429

Study Session 2-10-e

calculate and interpret the standard error of the sample mean

The standard error of the sample mean is the sample standard deviation (or the population standard deviation if known) divided by the square root of the sample size. In this case, the standard error of the sample mean = 320.5 / 500.5 = 0.80%

30. Compared to the normal distribution, the Student's *t*-distribution *most likely*:

Select exactly 1 answer(s) from the following:

- **A.** has fatter tails.
- **B.** is more peeked.
- C. exhibits skewness.
- **D.** has greater degrees of freedom.
- 30 Correct answer is A

"Sampling and Estimation," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 436-438

Study Session 2-10-i

describe the properties of Student's t-distribution, and calculate and interpret its degrees of freedom

The Student's t-distribution has fatter tails and is less peeked compared to the normal distribution.

31. The width of a confidence interval *most likely* will be smaller if the sample variance and number of observations, respectively, are:

	Sample variance	Number of observations
A.	Smaller	Smaller
B.	Smaller	Larger
C.	Larger	Smaller
D.	Larger	Larger

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.
- 31 Correct answer is **B**

"Sampling and Estimation," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 436-438

Study Session 2-10-j

calculate and interpret a confidence interval for a population mean, given a normal distribution with 1) a known population variance, 2) an unknown population variance, or 3) with an unknown variance and the sample size is large

The width of a confidence interval depends on the size of the standard error. The standard error will be smaller if the sample variance (standard deviation) is smaller and the sample size n is larger.

32. Which of the following steps in hypothesis testing *most likely* follows collecting the data and calculating the test statistic?

Select exactly 1 answer(s) from the following:

- **A.** Stating the hypotheses.
- **B.** Stating the decision rule.
- C. Making the statistical decision.
- **D.** Specifying the significance level.
- 32 Correct answer is C

"Hypothesis Testing," Richard A. Defusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkel 2008 Modular Level I, Vol. 1, pp. 456-466

Study Session 2-11-a

define a hypothesis, describe the steps of hypothesis testing, interpret and discuss the choice of the null hypothesis and alternative hypothesis, and distinguish between one-tailed and two-tailed tests of hypotheses

The seven steps in hypothesis testing are:

- 1) Stating the hypothesis.
- 2) Identifying the appropriate test statistic and its probability distribution.
- 3) Specifying the significance level.
- 4) Stating the decision rule.
- 5) Collecting the data and calculating the test statistic.
- 6) Making the statistical decision.
- 7) Making the economic or investment decision.

33. Which of the following is the *most likely* effect of an increase in output on the marginal cost in the short run?

	at low levels of output?	at high levels of output?
A.	Decrease due to economies	Decrease due to economies from
	from greater specialization	greater specialization
B.	Decrease due to economies	Increase due to the law of
	from greater specialization	diminishing returns
C.	Increase due to the law of	Decrease due to economies from
	diminishing returns	greater specialization
D.	Increase due to the law of	Increase due to the law of
	diminishing returns	diminishing returns

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

33 Correct answer is **B**

"Output and Costs," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 129-130

Study Session 4-17-d

explain the firm's production function, its properties of diminishing returns and diminishing marginal product of capital, the relation between short-run and long-run costs, and how economies and diseconomies of scale affect long-run costs. Marginal cost decreases at low outputs because of economies from greater specialization. At higher levels of production, it eventually increases because of the law of diminishing returns.

34. A firm is said to be operating on its long-run average cost curve when:

Select exactly 1 answer(s) from the following:

- **A.** it experiences constant returns to scale.
- **B.** its long-run average cost curve is horizontal.
- C. it produces a given output at the least possible cost.
- **D.** it chooses a plant size that minimizes the average fixed cost.
- 34 Correct answer is C

"Output and Costs," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 136-138

Study Session 4-17-d

explain the firm's production function, its properties of diminishing returns and diminishing marginal product of capital, the relation between short-run and long-run costs, and how economies and diseconomies of scale affect long-run costs. When a firm is producing a given output at the least possible cost, it is said to be operating on its long-run average cost curve.

35. Key factors that influence the levels of structural and frictional unemployment in an economy, respectively, are:

	Structural unemployment	Frictional unemployment
A.	changes in technology	changes in technology
B.	changes in technology	unemployment compensation

C.	unemployment compensation	changes in technology
D.	unemployment compensation	unemployment compensation

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer**D.**

35 Correct answer is B

"Monitoring Cycles, Jobs, and the Price Level," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 297-299

Study Session 5-22-c

explain the types of unemployment, full employment, the natural rate of unemployment, and the relation between unemployment and real GDP

Structural unemployment refers to the unemployment due to changes in technology, changes in skills needed to perform jobs or changes in the location of jobs. Frictional unemployment, on the other hand, is influenced by unemployment compensation.

36. Which of the following are the *most likely* effects of an increase in tax on interest income on the investment demand and interest rates, respectively?

	Effect on investment demand	Effect on interest rates	
A.	No effect	No effect	
B.	No effect	Increase	
C.	Decrease	No effect	
D.	Decrease	Increase	

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

36 Correct answer is **B**

"Fiscal Policy," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 441-443

Study Session 6-27-b

discuss the sources of investment finance and the influence of fiscal policy on capital markets, including the crowding-out effect

The quantity of investment that firms plan to undertake depends only on how productive capital is and what it costs - its real interest rate. Therefore, a tax on interest income has no effect on investment demand. On the other hand, a tax on interest income weakens the incentive to save as savers look at the after-tax real interest rate they receive. The interest rates would rise as a result of the decrease in saving supply.

37. The best description of the elasticity of supply of renewable and nonrenewable natural resources, respectively, is:

	Renewable resource	Nonrenewable resource	
A.	perfectly elastic	perfectly elastic	
B.	perfectly elastic	perfectly inelastic	
C.	perfectly inelastic	perfectly elastic	
D.	perfectly inelastic	perfectly inelastic	

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer**D.**
- 37 Correct answer is C

"Demand and Supply in Factor Markets," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 271-274

Study Session 5-21-g

differentiate between renewable and non-renewable natural resources and describe the supply curve for each

The quantity of land and other renewable natural resources is fixed and their supply is perfectly inelastic. On the other hand, the flow supply of a nonrenewable natural resource (e.g., oil) is perfectly elastic.

38. For factors of production that differ in their supply elasticity, perfectly elastic or perfectly inelastic, the factor income is entirely:

	Perfectly elastic supply	Perfectly inelastic
		supply
A.	economic rent	economic rent
B.	economic rent	opportunity cost
C.	opportunity cost	economic rent
D.	opportunity cost	opportunity cost

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer D
- 38 Correct answer is C

"Demand and Supply in Factor Markets," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 275-277

Study Session 5-21-h

differentiate between economic rent and opportunity costs

When the supply of the factor is perfectly elastic (horizontal supply curve), the factor's entire income comprises opportunity cost. When the supply of the factor is perfectly inelastic (vertical supply curve), the factor's entire income comprises economic rent.

39. Which of the following is the most likely effect of changes in inflation and/or unemployment on the Phillips curve?

Select exactly 1 answer(s) from the following:

- **A.** A change in the expected inflation causes a shift in both short-run and long-run Phillips curves.
- **B.** A change in the natural rate of unemployment causes a shift in both short-run and long-run Phillips curves.
- C. A change in the natural rate of unemployment causes a shift in the short-run but not the long-run Phillips curve.
- **D.** If inflation falls below its expected rate, unemployment falls below its natural rate and there would be a movement up along the short-run Phillips curve.
- 39 Correct answer is **B**

"Inflation." Michael Parkin

2008 Modular Level I, Vol. 2, pp. 414-418

Study Session 6-26-e

explain the impact of inflation on unemployment, and describe the short-run and long-run Phillips curve, including the effect of changes in the natural rate of unemployment

A change in the natural rate of unemployment shifts both short-run and long-run Phillips curves. Suppose the natural rate of unemployment increases from 6 to 9%, but the inflation remains constant at 10%. As a result, both short-run and long-run Phillips curves move outward adjusting to the new, higher level of natural unemployment rate. The new point of intersection between the two lines would be at 9% unemployment rate and 10% inflation rate (Figure 11, p. 418)

40. According to the feedback rule with productivity shocks, in order to stabilize the price level the *most likely* action by the Fed and the resulting effect on real GDP, respectively, are:

Fed's action	Effect on real GDP

A.	Fed decreases the quantity of money	the real GDP declines
B.	B. Fed decreases the quantity of money the real GDP remains consta	
C.	C. Fed keeps the quantity of money constant the real GDP declines	
D.	Fed keeps the quantity of money constant	the real GDP remains constant

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer**D.**

40 Correct answer is **B**

"Monetary Policy," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 473-475

Study Session 6-28-c

discuss the fixed-rule and feedback-rule policies to stabilize aggregate supply in response to a productivity shock and a cost-push inflation shock

According to the feedback rule, when the price level rises the Fed decreases the quantity of money in order to reduce aggregate demand. As a result, the price level as well as the real GDP would remain constant.

41. In a perfectly competitive environment, a firm achieves maximum profit at the level of production where marginal revenue and marginal revenue product of labor, respectively, are equal to:

	Marginal revenue	Marginal revenue
		product <u>of labor</u>
A.	average cost	wage rate
B.	average cost	marginal product
C.	marginal cost	wage rate
D.	marginal cost	marginal product

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.
- 41 Correct answer is C

"Demand and Supply in Factor Markets," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 253-256

Study Session 5-21-a

explain why demand for the factors of production is called derived demand, differentiate between marginal revenue and marginal revenue product (MRP), and describe how the MRP determines the demand for labor and the wage rate. A change in total revenue that results from one more unit of labor is called the marginal revenue product of labor. In a perfectly competitive market, profit is maximized when, at the quantity of labor hired, marginal revenue equals marginal cost and marginal revenue product equals the wage rate. These two conditions are equivalent and the quantity of labor that maximizes profit produces the output that maximizes profit.

42. In regulating a natural monopoly, the pricing rule *most commonly* adopted by a regulator, and its effect on the firm's profit, respectively, are:

	Pricing rule	Effect on firm's profit	
A.	average cost pricing	the firm earns normal profit	
B.	average cost pricing	the firm incurs economic loss	
C.	C. marginal cost pricing the firm earns normal profit		
D.	marginal cost pricing	the firm incurs economic loss	

Select exactly 1 answer(s) from the following:

A. AnswerA.

- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

42 Correct answer is A

"Monopoly," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 198-200

Study Session 5-19-e

explain the potential gains from monopoly and the regulation of a natural monopoly

The marginal cost pricing rule is efficient but it leaves the natural monopoly incurring an economic loss. Therefore, regulators almost never impose marginal cost pricing rule. Instead, they adopt the average cost pricing rule, which allows the firm to cover its costs and earn a normal profit.

43. Which of the following is the *most accurate* description of the determination of interest rates?

Select exactly 1 answer(s) from the following:

- **A.** The real interest rate is determined in the money market.
- **B.** The nominal interest rate is determined in the capital market.
- C. The real interest rate equals the nominal interest rate minus the expected inflation rate.
- **D.** The nominal interest rate equals the real interest rate plus the unexpected inflation rate.
- 43 Correct answer is C

"Inflation," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 419-421

Study Session 6-26-f

explain the relation among inflation, nominal interest rates, and the demand and supply of money

The real interest rate equals the nominal interest rate minus the expected inflation rate, which is the same as nominal interest rate equals the real interest rate plus the expected inflation rate.

44. The short-run effect of an increase in aggregate demand as a result of increases in government purchases on price level and real GDP, respectively, are:

	Effect on price	Effect on real GDP
	<u>level</u>	
A.	increase	increase
B.	increase	no effect
C.	no effect	increase
D.	no effect	no effect

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

44 Correct answer is A

"Inflation," Michael Parkin

2008 Modular Level I, Vol. 2, pp. 402-405

Study Session 6-26-b

describe and distinguish among the factors resulting in demand-pull and cost-push inflation, and describe the evolution of demand-pull and cost-push inflationary processes

An increase in aggregate demand as a result of an increase in government purchases, an example of demand-pull inflation, leads to an increase in both price level and the real GDP (Figure 2, p. 402).

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

An analyst gathered the following information about a company:

Cost of goods sold	\$18.4 million
Average inventory	\$2.5 million
Receivables turnover	24 times
Payables payment period	25 days

The company's cash conversion cycle is *closest* to:

Select exactly 1 answer(s) from the following:

A. 40 days.

B. 59 days.

C. 65 days.

D. 90 days.

45 Correct answer is A

"Financial Analysis Techniques," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn 2008 Modular Level I, Vol. 3, pp. 590-593

"Working Capital Management," Edgar A. Norton, Jr., Kenneth L. Parkinson, and Pamela p. Peterson

2008 Modular Level I, Vol. 4, pp. 89-92

Study Sessions 10-41-d, 11-46-a

calculate and interpret activity, liquidity, solvency, profitability, and valuation ratios;

calculate and interpret liquidity measures using **Select**ed financial ratios for a company and compare it with peer companies. The cash conversion cycle is equal to inventory processing days + days in accounts receivable - payables payment period.

Inventory turnover = \$18.4 / \$2.5 = \$7.36.

Inventory processing days: 365 / inventory turnover = 365 / 7.36 = 49.59 days.

Days in accounts receivables: 365 / 24 = 15.21 days. Cash conversion cycle: 49.59 + 15.21 - 25 = 39.8 days.

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

Two companies operating in the same industry both achieved the same return on owner's equity with the same net sales, but the two companies were different with respect to return on total assets. Compared with the company that had the higher return on total assets, the company with the lower return on total assets *most likely* had a higher:

Select exactly 1 answer(s) from the following:

- A. net profit margin.
- **B.** total asset turnover.
- C. financial leverage multiplier.
- **D.** proportion of common equity in the capital structure.

46 Correct answer is C

"Financial Analysis Techniques," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn 2008 Modular Level I, Vol. 3, pp. 604-607

Study Session 10-41-f

demonstrate the application of DuPont analysis (the decomposition of return on equity)

The DuPont system can be used to break down return on equity (ROE) into three components: Profit margin, total asset turnover, and financial leverage multiplier.

The first two components can be multiplied to calculate the return on assets (ROA). If the two companies have the same ROE, the company with the lower ROA must have a higher financial leverage multiplier (lower proportion of common equity in the capital structure).

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

If an analyst is preparing common-size financial statements for several companies in the same industry, the *most* appropriate way of expressing the interest expense for each company is as a percentage of:

Select exactly 1 answer(s) from the following:

- A. sales for the industry.
- **B.** sales for that company.

C. total interest-bearing debt for the industry.

D. total interest-bearing debt for that company.

47 Correct answer is **B**

"Financial Analysis Techniques," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn 2008 Modular Level I, Vol. 3, pp. 574-576

Study Session 10-41-a

evaluate and compare companies using ratio analysis, common-size financial statements, and charts in financial analysis Interest expense is an income statement account and the common-size percentage should be computed as a percentage of sales for that company.

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

An analyst gathered the following information about three equipment sales that a company made at the end of the year:

	Original Cost	Accumulated	Sale
		Depreciation	Proceeds
		at Date of Sale	
1	\$200,000	\$150,000	\$70,000
2	\$200,000	\$200,000	\$30,000
3	\$300,000	\$250,000	\$40,000

All else equal for that year, the company's cash flow from operations will *most likely* be:

Select exactly 1 answer(s) from the following:

- **A.** \$40,000 less than net income.
- **B.** \$10,000 less than net income.
- C. \$10,000 more than net income.
- **D.** \$40,000 more than net income.

48 Correct answer is A

"Understanding the Cash Flow Statement," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 271-273, 275-276

Study Session 8-34-f

demonstrate the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

Equipment sale 1 results in a gain of \$20,000, sale 2 results in a gain of \$30,000, and sale 3 results in a loss of \$10,000. The net gain is \$40,000. The amount that would be deducted from net income to determine cash flow from operations is equal to the net gain of \$40,000.

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

The following information is from a company's 2007 financial statements (\$ millions):

Balances as of the year ended 31 December	2007	2006
Retained earnings	140	120
Accounts receivable	43	38
Inventory	48	45
Accounts payable	29	36

The company declared and paid cash dividends of \$5 million in 2007 and recorded depreciation expense in the amount of \$25 million for 2007. The company's 2007 cash flow from operations (\$ millions) was *closest* to:

Select exactly 1 answer(s) from the following:

A. 10.

B. 25.

C. 30.

D. 35.

49 Correct answer is **D**

"Understanding the Cash Flow Statement," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 275-278

Study Session 8-34-f

demonstrate the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data

The change in retained earnings is \$20 and dividends are paid from retained earnings. 2007 net income would equal the change in retained earnings plus any dividends paid during 2007. Depreciation expense would be added to net income and the changes in balance sheet accounts would also be considered to determine cash flow from operations.

\$20 + 5 (dividends) + 25 (depreciation) - 5 (increase in receivables) - 3 (increase in inventory) - 7 (decrease in payables) = \$35 million.

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

A company using the LIFO inventory method reported a \$20,000 decrease in the LIFO reserve during the year that reduced the LIFO reserve to \$85,000 at year-end. If the company had used FIFO instead of LIFO in that year, the company's financial statements would have reported:

Select exactly 1 answer(s) from the following:

- **A.** a lower cost of goods sold, but a higher inventory balance.
- **B.** a higher cost of goods sold, but a lower inventory balance.
- C. both a lower cost of goods sold and a lower inventory balance.
- **D.** both a higher cost of goods sold and a higher inventory balance.
- 50 Correct answer is **D**

"Analysis of Inventories," Gerald I. White, Ashwinpaul C. Sondhi, and Dov Fried

2008 Modular Level I, Vol. 3, pp. 312-320

Study Session 9-35-c, d, e

compare and contrast the effect of the different methods on cost of goods sold and inventory balances, and discuss how a company's choice of inventory accounting method affects other financial items such as income cash flow, and working capital; compare and contrast the effects of the choice of inventory method on profitability, liquidity, activity, and solvency ratios; indicate the reasons that a LIFO reserve might decline during a given period and evaluate the implications of such a decline for financial analysis

The negative change in the LIFO reserve would increase the cost of goods sold under FIFO compared to LIFO. FIFO COGS = LIFO COGS - Change in LIFO reserve.

The LIFO reserve has a positive balance so that FIFO inventory would be higher than LIFO inventory. FIFO inventory = LIFO inventory + LIFO reserve.

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

The year-end balances in a company's LIFO reserve were \$56.8 million in the company's financial statements for both 2006 and 2007. For 2007, the measure that will *most likely* be the same regardless of whether the company used the LIFO or FIFO inventory method is the:

Select exactly 1 answer(s) from the following:

- A. current ratio.
- **B.** inventory turnover.
- C. gross profit margin.
- **D.** amount of working capital.
- 51 Correct answer is C

"Analysis of Inventories," Gerald I. White, Ashwinpaul C. Sondhi, and Dov Fried

2008 Modular Level I, Vol. 3, pp. 320-325

Study Session 9-35-c, d

compare and contrast the effect of the different methods on cost of goods sold and inventory balances, and discuss how a company's choice of inventory accounting method affects other financial items such as income cash flow, and working capital; compare and contrast the effects of the choice of inventory method on profitability, liquidity, activity, and solvency ratios The LIFO reserve did not change from 2006 to 2007. Without a change in the LIFO reserve, cost of goods sold would be the same under both methods. Sales are always the same for both, so gross profit margin would be the same in 2007. The FIFO inventory would be higher because the LIFO inventory and LIFO reserve are added to compute FIFO inventory. Because the

inventory balances would be different under FIFO, the current ratio, inventory turnover, and net working capital would also be different under FIFO.

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

An analyst gathered the following information about a company:

Shares of common stock	1,000,000
Net income for the year	\$1,500,00
Par value of convertible bonds with a 4% coupon rate	\$10,000,000
Par value of cumulative preferred stock with a 7% dividend rate	\$2,000,000
Tax rate	30%

The bonds were issued at par and can be converted into 300,000 common shares. All securities were outstanding for the entire year.

Diluted earnings per share for the company are *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** \$1.05.
- **B.** \$1.26.
- **C.** \$1.36.
- **D.** \$1.43.

52 Correct answer is **B**

"Understanding the Income Statement," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn 2008 Modular Level I, Vol. 3, pp. 172-176

Study Session 8-32-h

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

Dividends of \$140,000 (0.07 x 2,000,000) should be deducted from net income to derive amount available for common shareholders: \$1,360,000 = (1,500,000 - 140,000). Basic EPS would be \$1,360,000 / 1,000,000 or \$1.36 per share. Diluted EPS would consider the convertible bonds if they were dilutive. Interest on the bonds would be \$400,000 and the after-tax add back to net income would be \$400,000 (0.7) or \$280,000. Diluted EPS would be \$1,640,000 / 1,300,000 shares assuming conversion = \$1.26 per share.

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

At the beginning of the year, two companies issued debt with the same market rate, maturity date, and total face value. One company issued coupon-bearing bonds at par and the other company issued zero-coupon bonds. All other factors being equal for that year, compared with the company that issued par bonds, the company that issued zero-coupon debt will *most likely* overstate:

Select exactly 1 answer(s) from the following:

- **A.** cash flow from operations but not interest expense.
- **B.** interest expense but not cash flow from operations.
- C. both cash flow from operations and interest expense.
- **D.** neither cash flow from operations nor interest expense.

53 Correct answer is A

"Analysis of Financing Liabilities," Gerald I. White, Ashwinpaul C. Sondhi, and Dov Fried

2008 Modular Level I, Vol. 3, pp. 466-475

Study Session 9-39-b, c

determine the effects of debt issuance and amortization of bond discounts and premiums on the financial statements and ratios; analyze the effect on financial statements and financial ratios of issuing zero-coupon debt

When a company issues a zero-coupon bond, cash flow from operations is overstated over the life of the bond. Interest expense is recorded for income statements purposes, but is added back in the statement of cash flows as a non-cash adjustment to cash flow from operations.

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

An analyst would find information about significant uncertainties affecting a company's liquidity, capital resources and results of operations in the:

Select exactly 1 answer(s) from the following:

- A. auditor's report.
- **B.** notes to the financial statements.
- **C.** balance sheet and income statement.
- **D.** management discussion and analysis.

54 Correct answer is **D**

"Financial Statement Analysis: An Introduction," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, p. 20

Study Session 7-29-c

discuss the importance of financial statement notes and supplementary information (including disclosures of accounting methods, estimates and assumptions) and management's discussion and analysis

Management must highlight any favorable and unfavorable trends and identify significant events and uncertainties that affect the company's liquidity, capital resources and results of operations in the MD&A.

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

When the financial statements materially depart from accounting standards and are not fairly presented, the audit opinion would be a(n):

Select exactly 1 answer(s) from the following:

- A. limited opinion.
- **B.** adverse opinion.
- C. qualified opinion.
- **D.** disclaimer of opinion.

55 Correct answer is **B**

"Financial Statement Analysis: An Introduction," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, p. 21

Study Session 7-29-d

discuss the objective of audits of financial statements, the types of audit reports, and the importance of effective internal controls

An adverse opinion occurs when the financial statements materially depart from accounting standards and are not fairly presented.

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

When an issue is going to be put to a vote, by shareholders, at an annual general meeting the company prepares a(n):

Select exactly 1 answer(s) from the following:

- A. annual report.
- **B.** interim report.
- C. proxy statement.
- **D.** management statement of responsibility.

56 Correct answer is C

"Financial Statement Analysis: An Introduction," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, p. 25

Study Session 7-29-e

identify and explain information sources other than annual financial statements and supplementary information that analysts use in financial statement analysis

Proxy statements are prepared and distributed to shareholders on matters that are to be put to a vote at shareholder meetings.

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

Which of the following is *least likely* to be classified as a financial statement element?

Select exactly 1 answer(s) from the following:

- A. Asset
- B. Revenue
- C. Liability
- **D.** Net income

57 Correct answer is **D**

"Financial Reporting Mechanics," Thomas R. Robinson, Hennie van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 37-39

Study Session 7-30-b

explain the relationship of financial statement elements and accounts, and classify accounts into the financial statement elements

Net income is not an element of the financial statements, but the net result of revenues less expenses. The elements are: assets, liabilities, owners' equity, revenue and expenses.

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

Bishop Ltd. received an advanced payment of \$10,000 on December 1, for rent on a property for December and January. On receipt they correctly recorded it as cash and unearned revenue. If at December 31, their year-end, they failed to make an adjusting entry related to this payment, ignoring taxes, what would the effect on the financial statements for the year be?

Select exactly 1 answer(s) from the following:

- **A.** Assets are overstated by \$5,000 and Liabilities are overstated by \$5,000.
- **B.** Liabilities are overstated by \$5,000 and Net income is overstated by \$5,000.
- C. Assets are overstated by \$5,000 and Owner's equity is overstated by \$5,000.
- **D.** Liabilities are overstated by \$5,000 and Owners' equity is understated by \$5,000.

58 Correct answer is **D**

"Financial Reporting Mechanics," Thomas R. Robinson, Hennie van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, p. 66

Study Session 7-30-e

explain the need for accruals and other adjustments in preparing financial statements

The company should have made an adjusting entry to reduce the Unearned revenue account (a liability) by \$5,000 and increase Revenue (and hence net income and retained earnings) by \$5,000. As the company failed to make the adjusting entry the liabilities are overstated and owners' equity is understated.

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

An analyst gathered the following information from a company's accounting records:

Assets, December 31, 2007	\$5,250,000
Liabilities, December 31, 2007	\$2,200,000
Contributed capital, December 31, 2007	\$1,400,000
Retained earnings, January 1, 2007	\$800,000
Dividends declared during 2007	\$200,000

The analyst's estimate of net income for 2007 would be *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** \$650,000.
- **B.** \$850,000.
- **C.** \$1,050,000.
- **D.** \$1,850,000.

59 Correct answer is C

"Financial Reporting Mechanics," Thomas R. Robinson, Hennie van Greuning, Karen O'Connor Rubsam, Elaine Henry, and

MichaelA. Broihahn

2008 Modular Level I, Vol. 3, pp. 40-42

Study Session 7-30-c, f

explain the accounting equation in its basic and expanded forms;

prepare financial statements, given account balances or other elements in the relevant accounting equation, and explain the relationships among the income statement, balance sheet, statement of cash flows, and statement of owners' equity

Total assets = liabilities + owner's equity.

Owner's equity = \$5,250,000 - 2,200,000 = 3,050,000.

Owners equity = contributed capital + ending retained earnings.

Ending retained earnings = 3,050,000 - 1,400,000 = 1,650,000.

Ending retained earnings = beginning retained earnings + net income - dividends.

1,650,000 = 800,000 + NI - 200,000. Net income = \$1,050,000

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

A financial reporting system has two components: the establishing of the rules or standards, and the enforcing of the rules. The responsibility for those two components generally lies with which of the following bodies?

	Establishing the rules	Enforcing the rules
A.	Standard-setting bodies	Standard-setting bodies
B.	Standard-setting bodies	Regulatory authorities
C.	Regulatory authorities	Standard-setting bodies
D.	Regulatory authorities	Regulatory authorities

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer**D.**

60 Correct answer is B

"Financial Reporting Standards," Thomas R. Robinson, Hennie van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 100-101

Study Session 7-31-b

explain the role of standard-setting bodies, such as the International Accounting Standards Board and the U.S. Financial Accounting Standards Board, and regulatory authorities such as the International Organization of Securities Commissions, the U.K. Financial Services Authority, and the U.S. Securities and Exchange Commission in establishing and enforcing financial reporting standards

Standard-setting bodies such as FASB or IASB are responsible for making the rules and developing accounting standards, whereas regulatory authorities such as the SEC, FSA, or IOSCO have the legal authority to enforce the standards.

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

Which of the following is *least likely* to be a characteristic of an effective financial reporting framework?

Select exactly 1 answer(s) from the following:

- A. Consistency
- **B.** Transparency
- C. Comparability
- **D.** Comprehensiveness

61 Correct answer is C

"Financial Reporting Standards," Thomas R. Robinson, Hennie van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 122

Study Session 7-31-g

identify the characteristics of a coherent financial reporting framework and barriers to creating a coherent financial reporting

network

The characteristics of a coherent financial reporting network are transparency, consistency and comprehensiveness. Comparability is a qualitative characteristic of financial statements.

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

An analyst has gathered the following data about Geneva Group Inc. and the health care industry in which it operates:

	Geneva	Industry Averages
	Group	as a percent of sales
	(\$ millions)	
Revenues	5,000	100%
Cost of goods sold	2,100	45%
Operating expenses	1,750	32%
Profit margin	475	9.5%

Which of the following conclusions can the analyst reasonably make? Compared to the industry Geneva:

Select exactly 1 answer(s) from the following:

- **A.** spends less on nonoperating costs and income taxes.
- **B.** has the same cost structure and net profit margin as the industry.
- C. is better at controlling product costs, but less effective at controlling operating costs.
- **D.** has a lower gross profit margin than the industry and spends more on its operating costs.

62 Correct answer is C

"Understanding the Income Statement," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn 2008 Modular Level I, Vol. 3, pp. 181-182

Study Session 8-32-j

evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement

The gross profit for Geneva = 5,000 - 2,100 = 2,900 or 58%. The gross profit for the industry is 1-.45 = 55%. Therefore, Geneva's cost of goods sold, or product costs, are lower; they must control them better. Operating costs are \$1,750 / 5000 = 35% for Geneva and 32% for the industry, hence they are not as effective at controlling their operating costs as the industry.

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

Differences between accrued revenue and expenses and cash flows result in the creation of assets and liabilities. Would each of the following revenue events result in the creation of an asset or a liability when the event originally occurs?

	Revenue is recognized	Cash is received before the
	before the cash is received.	revenue is recognized.
A.	Asset	Asset
B.	Asset	Liability
C.	Liability	Asset
D.	Liability	Liability

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

63 Correct answer is **B**

"Financial Reporting Mechanics," Thomas R. Robinson, Hennie van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 53, 56

"Understanding the Balance Sheet," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn 2008 Modular Level I, Vol. 3, p. 197

Study Session 7-30-d, 8-33-a

explain the process of recording business transactions using an accounting system based on the accounting equations;

illustrate and interpret the components of the assets, liabilities, and equity sections of the balance sheet, and discuss the uses of the balance sheet in financial analysis

Revenue recognition before the cash is received will result in the creation of an accounts receivable, an asset, whereas when the cash is received before the revenue is recognized a liability, unearned revenue, is created.

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

Lazlo Ltd, a European-based telecommunications provider, follows IASB GAAP and capitalizes new product development costs. During 2007 they spent €25 million on new product development and reported an amortization expense related to a prior year's new product development of €10 million. Other information related to 2007 is as follows:

	in €
	millions
Net income	225
Average assets	1,875
Cash flow from operations	290

An analyst would like to compare Lazlo to a U.S.-based telecommunications provider and has decided to adjust their financial statements to U.S. GAAP. Under U.S. GAAP, and ignoring tax effects, the return on assets (ROA) and cash flow from operations (CFO) for Lazlo would be *closest* to:

	ROA	CFO
		millions
A.	10.7%	€ 265
B.	10.7%	€ 275
C.	11.2%	€ 265
D.	11.2%	€ 275

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

64 Correct answer is C

"Analysis of Long-Lived Assets: Part I - The Capitalization Decision," Gerald I. White, Ashwinpaul C. Sondhi, and Dov Fried 2008 Modular Level I, Vol. 3, pp. 354-356

Study Session 9-36-a, b

demonstrate the effects of capitalizing versus expensing on net income, shareholders' equity, cash flow from operations, and financial ratios;

determine which intangible assets, including software development costs and research and development costs, should be capitalized, according to U.S. GAAP and international accounting standards

If all development costs had been expensed then net income would be reduced by the amount spent, and increased by the amortization of the previously capitalized amounts: 225 - 25 + 10 = 210 million. ROA = 210 / 1,875 = 11.2%. CFO would be lower by the amount spent on development 290 - 25 = 265 million. Note: The amortization of previous development costs is a non-cash expense so does not affect cash flow.

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

Which of the following best describes taxes payable?

Select exactly 1 answer(s) from the following:

- A. Total liability for current and future taxes
- **B.** Expense based on current period pre-tax income
- C. Tax return liability resulting from current period taxable income
- **D.** Actual cash outflow for income taxes including payments (refunds) for other years

65 Correct answer is C

"Analysis of Income Taxes," Gerald I. White, Ashwinpaul C. Sondhi, and Dov Fried 2008 Modular Level I, Vol. 3, p. 423

Study Session 9-38-a

explain the key terms related to income tax accounting and the origin of deferred tax liabilities and assets

Taxes payable is the current liability resulting from the current period taxable income based on taxable income.

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

Madison Inc. is planning a bond issue. They are considering issuing either a straight coupon bond or a coupon bond with warrants attached. The proceeds from either issue would be the same. What will be the effect on their interest expense and balance sheet liability if they issue the bonds with warrants as compared to the straight bonds? For the bonds with warrants the:

	interest expense	balance sheet
	will be	<u>liability</u> will be
A.	lower	lower
B.	lower	higher
C.	higher	lower
D.	higher	higher

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

66 Correct answer is A

"Analysis of Income Taxes," Gerald I. White, AshwinpaulC. Sondhi, and Dov Fried

2008 Modular Level I, Vol. 3, p. 486

Study Session 9-39-d

classify a debt security with equity features as a debt or equity security and demonstrate the effect of issuing debt with equity features on the financial statements and ratios

The portion of the proceeds attributable to the warrants would be classified as equity, thus the portion classified as a liability would be smaller (lower). The lower balance sheet value would lead to a lower interest expense when it is calculated. The interest expense is based on the liability at the beginning of the period, not the coupon payment.

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

Kim Lee, CFA, is trying to forecast net income for Robinson's Ltd, a chain of retail furniture outlets. He has prepared the following common sized data from their recent annual report and has estimated sales for 2008 using a forecasting model his firm developed for consumer goods.

	2008	2007	2006
	forecast	actual	actual
Sales \$ millions	2,250	2,150	1,990
Sales as % of sales		100.00%	100.00%
Cost of goods sold		45.00%	45.00%
Operating expenses		40.00%	40.00%
Interest expense		3.72%	4.02%
Restructuring		0%	7.2%
expense			
Pre-tax margin		11.28%	3.78%
Taxes (35%)		3.95%	1.32%
Net income		7.33%	2.46%

The capital structure of the company has not changed. The projected net income (in \$ millions) for 2008 is *closest* to:

Select exactly 1 answer(s) from the following:

A. 110.1.

B. 162.8.

C. 164.9.

D. 167.4.

67 Correct answer is **D**

"Financial Statement Analysis: Applications," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 641-646

Study Session 10-42-b

prepare a basic projection of a company's future net income and cash flow

The cost of goods sold and operating expenses are relatively constant over the

two-year period and averages of them can reasonably be used to forecast 2008.

Interest expense is declining as a percent of sales, implying it is a fixed

cost. Conversion into dollars for each year shows what interest expense has been

(2007 = \$80, 2006 = \$80) and that would be a reasonable projected amount to use.

The restructuring charge should not be included as it is a non-recurring item.

The tax rate, 35%, is given.

Sales	\$2,250.00
CGS (45%)	1,012.50
Operating expenses (40%)	900.00
Interest expense	80.00
Pretax margin	\$257.50
Tax (35%)	90.10
Net income	\$167.40

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

Where are the unrealized gains and losses arising from changes in the market value of available-for-sale securities reported under U.S. GAAP and IFRS? They are reported in:

	<u>U.S. GAAP</u>	<u>IFRS</u>
A.	equity	equity
B.	equity	Income statement
C.	Income statement	equity
D.	Income statement	income statement

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

68 Correct answer is **A**

"Understanding the Income Statement," Thomas R. Robinson, Jan Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, p. 186

"International Standards Convergence," Thomas R. Robinson, Jan Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, p. 682

Study Sessions 8-32-k, 10-43-a

state the accounting classification for items that are excluded from the income statement but affect owners' equity, and list the major types of items receiving that treatment; identify and explain the major international accounting standards for each asset and liability category on the balance sheet and the key differences from U.S. generally accepted accounting principles (GAAP) Under both U.S. GAAP and IFRS the unrealized gains and losses arising from carrying available-for-sale securities at market value are reported in equity as part of accumulated other comprehensive income.

69. A large corporation recently decided to accept a project with a negative net present value. That project *most likely* is classified in which of the following categories?

Select exactly 1 answer(s) from the following:

- **A.** Expansion project.
- **B.** Replacement project.
- C. New product or service.
- **D.** Regulatory or environmental project.
- 69 Correct answer is **D**

"Capital Budgeting," John D. Stowe and Jacques R. Gagné

2008 Modular Level I, Vol. 4, pp. 8-10

Study Session 11-44-a

explain the capital budgeting process, including the typical steps of the process, and distinguish among the various categories of capital projects

Regulatory, safety, and environmental projects are often mandated by governmental agencies. The corporation may be required to install equipment to meet a regulatory standard, and the cost of satisfying the standard is born by the corporation. In this case, the corporation**Select**s the lowest cost alternative that meets the requirement, i.e., the alternative with the least negative net present value.

70. Howard Quarries has recently opened a limestone quarry at a location outside their traditional service area. Because limestone is a major ingredient in concrete, if the quarry is successful Howard plans to build a ready-mix concrete plant at the same location. The investment in the concrete plant is *best* described as:

Select exactly 1 answer(s) from the following:

- **A.** an externality.
- **B.** project sequencing.
- C. a mutually exclusive project.
- **D.** an example of investment synergy.

70 Correct answer is **D**

"Capital Budgeting," John D. Stowe and Jacques R. Gagné

2008 Modular Level I, Vol. 4, pp. 10-12

Study Session 11-44-c

explain how the following project interactions affect the evaluation of a capital project: (1) independent versus mutually exclusive projects, (2) project sequencing, and (3) unlimited funds versus capital rationing

Project sequencing occurs when the investment in one project creates the option to invest in future projects.

71. An analyst determined the following cash flows for a capital project:

Year	0	1	2	3	4	5
Cash flow (€)	-100	30	40	40	30	20

The required rate of return for the project is 13%. The net present value (NPV) and the profitability index for the project, respectively, are *closest* to:

	NVP	Profitability index
A.	€14.85	1.15
B.	€14.85	1.30
C.	€29.78	1.15
D.	€29.78	1.30

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

71 Correct answer is **A**

"Capital Budgeting," John D. Stowe and Jacques R. Gagné

2008 Modular Level I, Vol. 4, pp. 12-19

Study Session 11-44-d

calculate and interpret the results using each of the following methods to evaluate a single capital project: net present value (NPV), internal rate of return (IRR), payback period, discounted payback period, average accounting rate of return (AAR), and profitability index (PI)

Using a calculator with a 13% discount rate, the NPV is €14.85.

The profitability index = 1 + (NPV / initial investment) = 1 + 14.85 / 100) = 1.15.

72. An analyst gathered the following information about the capital structure and before-tax component costs for a company. The company's marginal tax rate is 40%.

Capital	Book Value	Market Value (000)	Component cost
component	(000)		
Debt	\$100	\$80	8%
Preferred stock	\$20	\$20	10%
Common stock	\$100	\$200	12%

The company's weighted average cost of capital (WACC) is *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** 8.55%.
- **B.** 9.95%.
- **C.** 10.00%.
- **D.** 10.80%.

72 Correct answer is **B**

"Cost of Capital," Yves Courtois, GeneC. Lai, and Pamela p. Peterson

2008 Modular Level I,

Vol. 4, pp. 38-43

Study Session 11-45-a, c

calculate and interpret the weighted average cost of capital (WACC) of a company;

describe alternative methods of

calculating the weights used in the weighted average cost of capital, including the use of the company's target capital structure Because the target capital weights

are not given, you can use market value weights to compute the WACC. The market value weights for debt, preferred stock and equity are

0.2667, 0.0667, and 0.6667 respectively.

WACC = wd x rd x (1 - t) + wp x rp

+ we x re

 $= 0.2667 \times 8\% \times (1 - 0.4) + 0.0667 \times 10\% + 0.6667 \times 12\% = 9.95\%$

73. A company's optimal capital budget is *best* described as the amount of new capital required to undertake all projects with an internal rate of return greater than the:

Select exactly 1 answer(s) from the following:

- A. marginal cost of capital.
- **B.** cost of new debt capital.
- C. cost of retained earnings.
- **D.** weighted average cost of capital.

73 Correct answer is **D**

"Cost of Capital," Yves Courtois, GeneC. Lai, and Pamela p. Peterson

2008 Modular Level I, Vol. 4, pp. 43-45

Study Session 11-45-d

explain how the marginal cost of capital and the investment opportunity schedule are used to determine the optimal capital

budget

The optimal capital budget is the amount of new capital required to undertake all investment projects with an IRR greater than the marginal cost of capital.

74. Waynesboro Industries is considering issuing a 10-year, option-free, semiannual coupon bond with a 9% coupon rate. The bond is expected to sell at 95% of par value. If the company's marginal tax rate is 30%, then the after-tax cost of debt is *closest* to:

Select exactly 1 answer(s) from the following:

A. 6.30%.

B. 6.86%.

C. 9.00%.

D. 9.80%.

74 Correct answer is **B**

"Cost of Capital," Yves Courtois, GeneC. Lai, and Pamela p. Peterson

2008 Modular Level I,

Vol. 4, pp. 45-47

Study Session 11-45-f

calculate and interpret the cost of fixed rate debt capital using the yield-to-maturity approach and the debt-rating approach

Using a financial calculator: N = 20, PMT = 45, PV = 950, FV = 1000; solve for %I = 4.90%. The annual yield is twice the semiannual yield = 4.90% x 2 = 9.80%.

The after-tax cost of debt = annual yield x (1 - t) = 9.80% x (1 - 0.30) = 6.86%

75. Staunton Manufacturing is considering issuing nonconvertible, noncallable fixed-rate perpetual preferred stock with a \$6 annual dividend. The preferred stock is expected to sell for \$40. If the company's marginal tax rate is 30%, then the after-tax cost of preferred stock is *closest* to:

Select exactly 1 answer(s) from the following:

A. 4.50%.

B. 6.67%.

C. 10.5%.

D. 15.0%.

75 Correct answer is **D**

"Cost of Capital," Yves Courtois, GeneC. Lai, and Pamela p. Peterson

2008 Modular Level I, Vol. 4, pp. 48-49

Study Session 11-45-g

calculate and interpret the cost of noncallable, nonconvertible preferred stock

The cost of a perpetuity is the annual cash flow divided by the selling price. In this case: rp = 6.00 / 40 = 15.0%. Because the preferred stock dividend is not tax deductible to the issuing company, there is no after-tax adjustment.

76. An analyst gathered the following information about Afton, Inc., and the market:

Current market price per share of common stock	€32.00
Most recent dividend per share paid on common stock	€2.40
Expected dividend payout rate	40%
Expected return on equity (ROE)	15%
Beta for the common stock	1.5
Expected return on the market portfolio	12%
Risk-free rate of return	4%

Using the dividend discount model approach, the cost of common equity is *closest* to:

Select exactly 1 answer(s) from the following:

A. 15.0%.

B. 16.0%.

C. 16.5%.

D. 17.2%.

76 Correct answer is D

"Cost of Capital," Yves Courtois, GeneC. Lai, and Pamela p. Peterson

2008 Modular Level I, Vol. 4, pp. 54-55

Study Session 11-45-h

calculate and interpret the cost of equity capital using the capital asset pricing model approach, the dividend discount model approach, and the bond-yield-plus risk-premium approach

According to the dividend discount model approach, the cost of common equity is equal to the dividend yield plus the growth rate. In this case, the growth rate is the earnings retention rate times the expected ROE or (1 - dividend payout rate) x expected ROE = 1 - 0.4) x 15% = 9%. The expected dividend = 2.40 x (1 + 0.09) = 2.616. The expected dividend yield = 2.616 / 32 = 8.175%. The cost of common equity = $8.175\% + 9.0\% \approx 17.2\%$.

77. The cash manager for Wicker Enterprises is investigating the purchase of a banker's acceptance (BA). The \$1,000,000 face value BA has 150 days to maturity and is quoted at 4.05% on a discount-basis yield. If Wicker's marginal tax rate is 25%, then the money market yield on the BA is *closest* to:

Select exactly 1 answer(s) from the following:

A. 3.09%.

B. 3.13%.

C. 4.12%.

D. 4.18%.

77 Correct answer is C

"Working Capital Management," Edgar A. Norton, Jr., Kenneth L. Parkinson, and Pamela p. Peterson

2008 Modular Level I, Vol. 4, pp. 101-102

Study Session 11-46-e

compute and interpret comparable yields on various securities, compare portfolio returns against a standard benchmark, and evaluate a company's short-term investment policy guidelines

Money market yield = discount-basis yield x (face value / purchase price)

Purchase price = face value - [face value x discount-basis yield x (days to maturity / 360)]

 $= \$1,000,000 - [\$1,000,000 \times 0.0405 \times (150 / 360)] = \$983,125$

Money market yield = 4.05% x (\$1,000,000 / \$983,125) = 4.12%

78. Regarding corporate governance, which of the following *most likely* would be a reason for concern when evaluating the compensation committee? The compensation committee:

Select exactly 1 answer(s) from the following:

- **A.** has written policies and procedures.
- **B.** includes members of executive management.
- C. purchases shares on the open market to fund stock option commitments.
- **D.** discloses information about compensation paid to executives and board members.

78 Correct answer is B

"The Corporate Governance of Listed Companies: A Manual for Investors" (CFA Institute, 2005)

2008 Modular Level I, Vol. 4, pp. 173-175

Study Session 11-48-f

state the key areas of responsibility for which board committees are typically created, and explain the criteria for assessing whether each committee is able to adequately represent shareowner interests

The compensation committee should be independent from executive management.

79. Hari Raju, CEO of Securities Tracking Associates (STA), is thinking of devising a new index for the Indian stock market. He does not, however, like an index that requires adjustment for stock splits. Given this preference, Raju would be *least likely* to develop which of the following types of indexes?

Select exactly 1 answer(s) from the following:

A. Style Index

- **B.** Un-weighted Index
- C. Price-weighted Index
- **D.** Value-weighted Index

79 Correct answer is A

"Security-Market Indexes," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 5, pp. 42-46

Study Session 13-53-a

compare and contrast the characteristics of, and discuss the source and direction of bias exhibited by, each of the three predominant weighting schemes used in constructing stock market indexes, and compute a price-weighted, value-weighted and un-weighted index series for three stocks;

A price-weighted index, such as the Dow Jones Industrial Average, is computed by summing up the prices of individual stocks and dividing by a divisor that is adjusted for stock splits such that the index value is the same before and after the split.

80. Two industries, A and B, have the following values for N-firm concentration ratio and Herfindahl Index:

Industry	3-Firm Concentration Ratio	Herfindahl Index
A	40%	0.095
В	75%	0.1938

Given this, which of the following statements is *most* accurate?

Select exactly 1 answer(s) from the following:

- **A.** Industry A can be characterized as oligopolistic competition.
- **B.** Firms in Industry A would have a greater coordination than firms in Industry **B.**
- C. Industry A has a larger number of equivalent firms than IndustryB.
- **D.** Product differentiation strategy would be more appropriate for firms in Industry B than for firms in Industry A.

80 Correct answer is C

"Equity: Concepts and Techniques," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 5, pp. 138-139

Study Session 14-58-d, e

discuss the specific advantages of both the concentration ratio and the Herfindahl index;

discuss, with respect to global industry analysis, the elements related to risk, and describe the basic forces that determine industry competition

The "equivalent" number of firms is the reciprocal of Herfindahl Index and it is 10.5 for Industry A and 5.2 for Industry B.

81. Chenchell's India Trading Co. (CITC), an importer-exporter of specialty goods and garments, has operations in Asia, Europe, and North America. Marc Twinsing, CFA, a balanced fund manager, is considering adding CITC's stock to his portfolio and he has compiled the following information:

	CITC	Industry Average
Weighted average cost of capital (WACC)	14%	12%
Return on Assets (ROA)	20%	15%
Dividend Yield	0%	1.2%
Consensus estimate of stock's value	\$53	N/A
Current price of CITC's stock	\$50	N/A

Based on his analysis Twinsing's most likely conclusions about the company and its stock, respectively, would be:

	that CITC company is a:	that CITC's stock is a:
A.	growth company	growth stock
B.	growth company	speculative stock
C.	speculative company	growth stock
D.	speculative company	speculative stock

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.

D. Answer**D.**

81 Correct answer is A

"Company Analysis and Stock Valuation," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 5, pp. 150-152

Study Session 14-59-a

differentiate between 1) a growth company and a growth stock, 2) a defensive company and a defensive stock, 3) a cyclical company and a cyclical stock, 4) a speculative company and a speculative stock, and 5) a value stock and a growth stock CITC is a growth company because its spread between ROA and WACC is larger than the industry average and its dividend yield is 0% compared to the industry average of 1.2%. CITC's stock is a growth stock considering its under-valuation. A speculative stock, on the other hand, would be overvalued.

82. Which of the following is the *least* accurate rationale to justify the use of price-to-book value (P/BV) ratio as a measure of relative valuation of companies or common stocks?

Select exactly 1 answer(s) from the following:

- **A.** P/BV is helpful in valuing companies experiencing negative earnings per share.
- **B.** P/BV is a useful measure of value for firms that are not expected to continue as a going concern.
- C. P/BV correctly reflects a company's value as the book value is based on the historical purchase costs of assets.
- **D.** P/BV is particularly appropriate to value companies primarily composed of liquid assets, for example, those in the financial services industry.
- 82 Correct answer is C

"Introduction to Price Multiples," John **D.** Stowe, Thomas R. Robinson, Jerald E. Pinto, and Dennis W. McLeavey 2008 Modular Level I, Vol. 5, pp. 211-212

Study Session 14-61-a

discuss the rationales for, and the possible drawbacks to, the use of price to earnings (P/E), price to book value (P/BV), price to sales (P/S), and price to cash flow (P/CF) in equity valuation

The historical cost basis of assets in P/B ratio is a drawback not a rationalization for using it as a measure of relative valuation.

83. Metiu Metev, an analyst with Sofia Equity Researchers, has gathered the following information about Balkan Steel Mills (BSM):

Current year's operating free cash flow	BGN 5
	million
Cost of equity capital	15%
Weighted average cost of capital	12.4%
Estimated long-term growth rate	6%

Given this information, Metev's best estimate of BSM's intrinsic value (in BGN millions) would be closest to:

Select exactly 1 answer(s) from the following:

A. 55.56 million.

B. 58.89 million.

C. 78.13 million.

D. 82.81 million.

83 Correct answer is D

"An Introduction to Security Valuation: Part II," Frank K. Reilly and Keith

C. Brown

2008 Modular Level I, Vol. 5, pp. 180-181, 184

Study Session 14-60-b, f

calculate and interpret the value both of a preferred stock and a

common stock using the dividend discount model (DDM);

describe a process for developing estimated inputs to be used in the DDM, including the required rate of return and expected growth rate of dividends

V = OFCF1 / (WACC - g) = 5 (1.06) / (0.124 - 0.06) =

84. Geo Telecommunications Inc. is a fast growing company with a double-digit growth rate that is expected to continue for three more years. In his pursuit of valuing the company's stock, Dimiter Nenkov, a free-lance equity analyst, has compiled the following data about the company:

Current year's free cash flow to equity	€20 million
	30% in years 1 and 2
Growth rate in free cash flow during the next three years	20% in year 3
Growth rate in free cash flow for year 4 and beyond	8%
Weighted average cost of capital	12%
Cost of equity capital	15%
Number of outstanding shares	50 million

Based on the above information, Nenkov's *best* estimate of the value per share for Geo Telecommunications would be *closest* to:

Select exactly 1 answer(s) from the following:

A. € 9.72.

B. € 10.13.

C. € 17.17.

D. € 17.57.

84 Correct answer is A

"An Introduction to Security Valuation: Part II," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 5, pp. 182-185

"Understanding the Cash Flow Statement," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 287-288

Study Session 14-60-b, f; 8-34-i

calculate and interpret the value both of a preferred stock and a common stock using the dividend discount model (DDM); describe a process for developing estimated inputs to be used in the DDM, including the required rate of return and expected growth rate of dividends; explain and calculate free cash flow to the firm, free cash flow to equity, and other cash flow ratios

Time	FCFE	PVIF @	Present Value
Period		15%	
1	20 x 1.30 = 26.0	0.8696	€ 22.61
2	$20 \times 1.30^2 = 33.8$	0.7561	€ 25.56
3	$20 \times 1.30^2 \times 1.20 = 40.56$	0.6575	€ 26.67
4 &	$V_3 = (40.56 \times 1.08) / (0.15 - 0.08) =$	0.6575	€411.46
Beyond	625.78		
Value of Equity			€486.30
Value per share = Value of Equity / # of outstanding shares			€ 9.72

85. Sarah Lawton, CFA, gathered the following information about Dalton Computers Inc:

Common stock \$1.50 par value – Authorized 5,000,000 shares	
Common stock \$1.50 par value – Issued 4,000,000 shares	
Additional paid-in-capital	\$20,000,000
Retained earnings	\$5,000,000
Treasury stock (500,000 shares) \$10,000,000	
Current price per share	\$21

The price-to-book value of Dalton Computers is *closest* to:

Select exactly 1 answer(s) from the following:

A. 2.3.

B. 2.72.

C. 3.5.

D. 4.2.

85 Correct answer is C

"Introduction to Price Multiples," John **D.** Stowe, Thomas R. Robinson, Jerald E. Pinto, and Dennis W. McLeavey 2008 Modular Level I, Vol. 5, pp. 213-215

Study Session 14-61-b

calculate and interpret P/E, P/BV, P/S, and P/CF

BV per share = 4m shares (1.50) + \$20 m + \$5 m - \$10 m = \$21 m / 3.5 m sh. = \$6.00

Price-to-book value = \$21 / \$6.00 = 3.50

86. In a country that is experiencing neoclassical growth with increasing savings rate, investors can expect which of the following:

	higher dividends?	higher dividend growth?
A.	No	No
B.	No	Yes
C.	Yes	No
D.	Yes	Yes

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

86 Correct answer is C

"Equity: Concepts and Techniques," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 5, pp. 133-134

Study Session 14-58-a

classify business cycle stages and identify attractive investment opportunities for each stage

Neoclassical growth theory assumes that marginal productivity of capital declines as more capital is added. Thus, it predicts that the long-term level of GDP depends on the country's savings rate but not the long-term growth rate because of diminishing marginal returns and reaching a steady state. This implies increase in dividends, as the new level of GDP is reached, but not an increase in the dividend growth rate.

87. Which of the following is the *least likely* characteristic of a call market? A call market is a:

Select exactly 1 answer(s) from the following:

- A. primary market.
- B. secondary market.
- **C.** market with participation by a small number of active investors-traders.
- **D.** market in which buy-sell orders are cleared at a single equilibrium price.
- 87 Correct answer is A

"Organizing and Functioning of Securities Markets," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 5, pp. 13-15

Study Session 14-52-b, c

distinguish between primary and secondary capital markets, and explain how secondary markets support primary markets; distinguish between call and continuous market

A call market is an exchange (secondary market), not a primary market. Typically, it is characterized by a few listed stocks or a small number of active investor-traders. Buy-sell orders are cleared at a single price (equilibrium price) that satisfies most of the orders.

88. In computing free cash flow to equity, adjustment is needed for payments made to which of the following capital providers?

	<u>Debt holders</u>	Preferred stockholders
A.	No	No
B.	No	Yes

C.	Yes	No
D.	Yes	Yes

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

88 Correct answer is D

"An Introduction to Security Valuation: Part II," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 5, p. 185

"Understanding the Cash Flow Statement," Thomas R. Robinson, Hennie van Greuning, Elaine Henry, and Michael A. Broihahn

2008 Modular Level I, Vol. 3, pp. 287-288

Study Sessions 14-60-f, 8-34-i

describe a process for developing estimated inputs to be used in the DDM, including the required rate of return and expected growth rate of dividends;

explain and calculate free cash flow to the firm, free cash flow to equity, and other cash flow ratios

Free cash flow to equity is after subtracting payments to both debt holders and preferred stockholders.

89. An equity investment in a producer firm would be more attractive at what levels of the bargaining power of buyers and suppliers, respectively?

	Bargaining power of buyers	Bargaining power of suppliers
A.	Low	Low
B.	Low	High
C.	High	Low
D.	High	High

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

89 Correct answer is A

"Equity: Concepts and Techniques," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 5, p. 143

Study Session 14-58-e

discuss, with respect to global industry analysis, the elements related to risk, and describe the basic forces that determine industry competition

At high levels of the bargaining power of both buyers and suppliers, the producer would potentially experience a squeeze on profits and profit margins. Therefore, equity investments in producer firms with low levels of bargaining power of both buyers and sellers tend to be more attractive.

90. The latest annual report of Waterford Crossing Inc. contains the following data:

Common stock \$0.50 par value – Issued (2,000,000 shares)	\$1,000,000
Additional paid-in-capital	\$10,000,000
Retained earnings	\$4,000,000
Treasury stock (500,000 shares)	\$5,000,000
Current price per share	\$15

The company's ending inventories based on LIFO are valued at \$500,000 and a footnote to financial statements reports inventories valued using FIFO basis would be \$600,000. The company's tax rate is 30%. The un-adjusted and adjusted price-to-book values of Waterford Crossing, respectively, are *closest* to:

Unadjusted P/BV	Adjusted P/BV	

A.	\$1.88	\$1.81
B.	\$1.88	\$1.94
C.	\$2.25	\$2.10
D.	\$2.25	\$2.42

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer**D.**

90 Correct answer is C

"Introduction to Price Multiples," John **D.** Stowe, Thomas R. Robinson, Jerald E. Pinto, and Dennis W. McLeavey 2008 Modular Level I, Vol. 5, pp. 216-217

Study Session 14-61-b

calculate and interpret P/E, P/BV, P/S, and P/CF

Unadjusted price-to-book value ratio	Adjusted price-to-book value ratio
	Inventory adj.: (\$6 m - \$5 m) x 0.7 =
BV per share =	\$0.7 m;
1 1 m + 10 m + 4 m - 5 m =	Adj. BV per share =
\$10 m / 1.5 m sh. =	1 m + 10 m + 4 m - 5 m + 0.7 m =
\$6.67.	\$10.7 m / 1.5 m sh. =
	\$7.13.
Price-to-book value =	Adj. Price-to-book value =
\$15 / \$6.67 =	\$15 / \$7.13 =
2.25	2.10

91. A futures trader must deposit an additional amount of money into a margin account at the clearinghouse if the margin account ending balance is below the:

Select exactly 1 answer(s) from the following:

- **A.** initial margin requirement.
- **B.** variation margin requirement.
- C. maintenance margin requirement.
- **D.** amount of the loan borrowed from the clearinghouse.
- 91 Correct answer is C

"Futures Markets and Contracts," Don M. Chance

2008 Modular Level I, Vol. 6, pp. 55-57

Study Session 17-72-b

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

Holders of futures positions must maintain account balances above the maintenance margin requirement.

92. A futures trader goes long one futures contract at \$450. The settlement price 1 day before expiration is \$500. On expiration day, the future is trading at \$505. The *least likely* way the futures trader will lock in her profits on expiration is:

Select exactly 1 answer(s) from the following:

- **A.** take delivery of the underlying asset and pay \$500 to the short.
- **B.** close out the futures position by selling the futures contract at \$505.
- C. take delivery of the underlying asset and pay the expiration settlement price to the short.
- **D.** cash settle the futures and receive the difference between \$500 and the expiration settlement price.
- 92 Correct answer is C

"Futures Markets and Contracts," Don M. Chance

2008 Modular Level I, Vol. 6, pp. 60-62

Study Session 17-72-d

describe how a futures contract can be terminated by a close-out (i.e., offset) at expiration (or prior to expiration), delivery, an equivalent cash settlement, or an exchange-for-physicals

To lock in profits, take delivery and pay short the settlement price of the previous day, not the expiration day.

93. A description that will *least likely* be used to explain put-call parity is:

Select exactly 1 answer(s) from the following:

- **A.** the prices of calls and puts on an underlying asset must be consistent with each other to remove arbitrage opportunities.
- **B.** a fiduciary call option strategy and a protective put option strategy for an underlying asset are equal in value.
- C. a put is equivalent to a long call, a long position in the underlying asset, and a long position in the risk-free asset.
- **D.** a call is equivalent to a long put, a long position in the underlying asset, and a short position in the risk-free asset.
- 93 Correct answer is C

"Option Markets and Contracts," Don M. Chance

2008 Modular Level I, Vol. 6, pp. 108-110

Study Session 17-73-j

explain put-call parity for European options, and relate put-call parity to arbitrage and the construction of synthetic options. The put requires a short position in the underlying rather than a long position.

94. The effects on the price of a call option from an increase in volatility and an increase in interest rates are:

Increase in Volatility		<u>Increase in Interest Rates</u>	
A.	Decrease	Increase	
B.	Increase	Increase	
C.	Increase	Decrease	
D.	Increase	No impact	

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer**D.**
- 94 Correct answer is B

"Option Markets and Contracts," Don M. Chance

2008 Modular Level I, Vol. 6, pp. 115-116

Study Session 17-73-m

indicate the directional effect of an interest rate change or volatility change on an option's price

When volatility increases, the price of options increase. When interest rates increase, call option prices increase.

95. A market participant has a view regarding the potential movement of a stock. He sells a customized over-the-counter put option on the stock when the stock is trading at \$38. The put has an exercise price of \$36 and the put seller receives \$2.25 in premium. The price of the stock is \$35 at expiration. The profit or loss for the put seller at expiration is:

Select exactly 1 answer(s) from the following:

- **A.** (\$1.25).
- **B.** \$1.00.
- C. \$1.25.
- **D.** \$2.25.
- 95 Correct answer is C

"Risk Management Applications of Option Strategies," Don M. Chance

2008 Modular Level I, Vol. 6, pp. 151-157

Study Session 17-75-a

determine the value at expiration, profit, maximum profit, maximum loss, breakeven underlying price at expiration, and general shape of the graph of the strategies of buying and selling calls and puts, and indicate the market outlook of investors using these strategies

Profit = max (0, -value of put at expiration + premium) = max <math>(0, -(X - S) + premium) = -1 + 2.25 = \$1.25

96. An investor purchases a stock at \$60 and at the same time, sells a 3-month call on the stock. The short call has a strike price of \$65 and a premium of \$3.60. The risk-free rate is 4%. The breakeven underlying stock price at expiration is *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** \$55.85.
- **B.** \$56.40.
- **C.** \$60.80.
- **D.** \$61.40.

96 Correct answer is B

"Risk Management Applications of Option Strategies," Don M. Chance

2008 Modular Level I, Vol. 6, pp. 158-162

Study Session 17-75-b

determine the value at expiration, profit, maximum profit, maximum loss, breakeven underlying price at expiration, and general shape of the graph of a covered call strategy and a protective put strategy, and explain the risk management application of each strategy

A covered call breakeven price equals the price paid for the stock less the premium received for the call. Breakeven = (S - c) = (60 - 3.60) = \$56.40

97. If market interest rates rise, the price of a callable bond, compared to an otherwise identical option-free bond, will *most likely*:

Select exactly 1 answer(s) from the following:

- A. increase by less than the option-free bond.
- **B.** decrease by less than the option-free bond.
- **C.** decrease by more than the option-free bond.
- **D.** decrease by the same amount as the option-free bond.
- 97 Correct answer is B

"Risks Associated With Investing in Bonds," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, p. 267

Study Session 15-63-c

explain how features of a bond (e.g., maturity, coupon, and embedded options) and the level of a bond's yield affect the bond's interest rate risk

A callable bond's value is equal to an option-free bond less the value of the call option. As interest rates rise, the value of the call option decreases by a decreasing amount relative to the straight bond. The option-free bond also declines in value as interest rates rise, but this is offset by the decline in the value of the call option. Therefore, the price of a callable bond decreases by less than a comparable option-free bond.

98. A U.S. investor who purchases an option-free bond with a 7% coupon rate, maturing in 20 years, and issued by a U.S.-based company is most likely exposed to:

Select exactly 1 answer(s) from the following:

- **A.** sovereign risk and credit risk.
- **B.** event risk and interest rate risk.
- C. volatility risk and yield curve risk.
- **D.** interest risk and exchange-rate risk.

98 Correct answer is B

"Risks Associated With Investing in Bonds," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, p. 264-285

Study Session 15-63-a

explain the risks associated with investing in bonds

The investor faces event risk in a corporate bond and interest rate risk in a long dated, fixed coupon rate bond.

99. All else equal, an increase in expected yield volatility is *most likely* to result in an increase in the price of a(n):

Select exactly 1 answer(s) from the following:

- A. putable bond.
- B. callable bond.
- C. option-free bond selling at a discount to par.
- **D.** option-free bond selling at a premium to par.

99 Correct answer is A

"Risks Associated With Investing in Bonds," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, p. 284

Study Session 15-63-n

explain how yield volatility affects the price of a bond with an embedded option and how changes in volatility affect the value of a callable bond and a putable bond

An increase in expected yield volatility increases the price of the embedded put option. The price of a putable bond will increase because the price of the putable bond is equal to an option-free bond plus the put option.

100. Compared with an otherwise identical amortizing security, a zero-coupon bond will *most likely* have:

Select exactly 1 answer(s) from the following:

- **A.** less interest rate risk and more reinvestment risk.
- **B.** less reinvestment risk and more interest rate risk.
- C. the same reinvestment risk and less interest rate risk.
- **D.** the same interest rate risk and more reinvestment risk.

100 Correct answer is B

"Risks Associated With Investing in Bonds," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 266-270, 276-277

Study Session 15-63-c, i

explain how features of a bond (e.g., maturity, coupon, and embedded options) and the level of a bond's yield affect the bond's interest rate risk;

identify the factors that affect the reinvestment risk of a security and explain why prepayable amortizing securities expose investors to greater reinvestment risk than nonamortizing securities

An amortizing security receives periodic payments of both interest and principal that must be reinvested; therefore, it is exposed to reinvestment risk. A zero-coupon bond has no reinvestment risk since no cash flows are received that must be reinvested before maturity. Because zero-coupon bonds do not have periodic cash flows, they have the highest interest rate risk for a given maturity and a given change in market yields.

101. An analyst determined that if interest rates increase 120 basis points the price of a bond would be \$89.70, but if interest rates decrease 120 basis points the price of that bond would be \$99.30. If the initial price of the bond is \$95.40, the approximate percentage price change for a 100 basis point change in yield is *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** 2.5%.
- **B.** 4.2%.
- C. 8.4%.
- **D.** 10.0%.

101 Correct answer is B

"Risks Associated With Investing in Bonds," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 269-271

Study Session 15-63-f

compute and interpret the duration and dollar duration of a bond

The formula for calculating the duration of a bond (estimated percentage price change for a 100 basis point change in yield) is: Price if yields decline - price if yields increase / 2(initial price)(change in yield in decimal) = 99.3 - 89.7 / 2 (95.4)0.0120 = 4.19287.

102. For an A- rated corporate bond that has deteriorating fundamentals, but is expected to remain investment grade, the greatest risk is *most likely*:

Select exactly 1 answer(s) from the following:

- **A.** event risk.
- **B.** default risk.
- C. liquidity risk.
- **D.** credit spread risk.

102 Correct answer is D

"Risks Associated With Investing in Bonds," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 277-281

Study Session 15-63-j

describe the various forms of credit risk and describe the meaning and role of credit ratings

The bond is expected to see a widening of spreads as a result of deteriorating fundamentals and a potential downgrade but still remaining investment grade.

103. Fred Perry, CFA, purchased \$100,000 of a newly issued Treasury inflation protection security based on the following characteristics and information.

Issuance Date:	January 1, 2008
Issuance Price:	\$1,000
Maturity:	10 years
Auction set real rate:	2.00%
Interest payable:	Annually
CPI-U (Applicable Inflation Index):	5.00% (annual rate)

The coupon payment at the end of one year is *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** \$2,000.
- **B.** \$2,100.
- **C.** \$5,000.
- **D.** \$7,000.

103 Correct answer is B

"Overview of Bond Sectors and Instruments," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 299-301

Study Session 15-64-b

describe the types of securities issued by the U.S. Department of the Treasury (e.g., bills, notes, bonds, and inflation protection securities), and differentiate between on-the-run and off-the-run Treasury securities

First adjust the principal by inflation = $$100,000 \times 1.05 = $105,000$. Then multiply the adjusted principal by the real rate = $$105,000 \times 0.02 = $2,100$.

104. A portfolio manager is considering investing a portion of her fixed income portfolio in a security whose cash flows are dependent on an underlying pool of mortgages. The portfolio consists of Treasury bonds, corporate bonds and Ginnie Mae passthroughs. The security being considered is Tranche B of a collateralized mortgage obligation (CMO). The underlying collateral is a Ginnie Mae passthrough security. The rules of the CMO state that Tranche A is the first to receive monthly principal. By investing in Tranche B of the CMO, the portfolio manager will *most likely* reduce portfolio:

Select exactly 1 answer(s) from the following:

- A. credit risk.
- **B.** inflation risk
- C. sovereign risk.
- **D.** prepayment risk.

104 Correct answer is D

"Overview of Bond Sectors and Instruments," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 308-312

Study Session 15-64-f

state the motivation for creating a collateralized mortgage obligation

Adding Tranche B of the CMO to the portfolio will most likely reduce prepayment. A passthrough security, such as a Ginnie

Mae, can be prepaid as the underlying loans pay off principal, i.e., they are exposed to prepayment risk. On the other hand, the tranches in a CMO will be paid off sequentially, i.e., Tranche A then TrancheB. Tranche B has less prepayment risk than the underlying passthrough securities.

105. Hub Global, Inc. has issued two classes of debt securities to finance its operations, a first mortgage bond and debenture bonds. All else equal, will the default and recovery rates of the debenture likely be higher than the first mortgage bond?

	Default rate?	Recovery rate?
A.	No	No
B.	No	Yes
C.	Yes	No
D.	Yes	Yes

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

105 Correct answer is A

"Overview of Bond Sectors and Instruments," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 318-321

Study Session 15-64-h

describe the characteristics and motivation for the various types of debt issued by corporations (including corporate bonds, medium-term notes, structured notes, commercial paper, negotiable CDs, and bankers acceptances)

Default rates apply to the issuer and would be equal for any security issued by that issuer while the recovery of the unsecured debenture is lower than for the first mortgage bond which is secured.

106. Which of the statements is *least* accurate?

Select exactly 1 answer(s) from the following:

- **A.** Central banks need to ensure that they follow markets rather than guide them.
- **B.** Central banks can obtain an assessment of expected interest rates from bond markets.
- C. Goods and labor markets provide central banks with information about risks to price stability.
- **D.** Central banks should clearly communicate their strategies with financial markets and avoid surprises.

106 Correct answer is A

"Monetary Policy in an Environment of Global Financial Markets," Otmar Issing

2008 Modular Level I, Vol. 5 pp. 379-383

Study Session 15-66-a, b

identify how central bank behavior affects short-term interest rates, systemic liquidity, and market expectations, thereby affecting financial markets;

describe the importance of communication between a central bank and the financial markets

Central banks should guide markets and not follow them. The reason for this is that financial markets are susceptible to speculative bubbles that stray from fundamentals. Central bankers must keep their eyes on fundamentals.

107. An analyst has gathered the following information provided in the table below:

Period	Years	Treasury Spot Rate (%)	Credit Spread (%)
1	1	3.00	0.20
2	2	3.50	0.30
3	3	4.00	0.40
4	4	4.50	0.50
5	5	5.00	0.60

Based on the information provided in the table, the current market price of a \$1,000 par value, option-free, 0% coupon corporate bond maturing in 5 years is *closest* to:

Select exactly 1 answer(s) from the following:

- A. \$758.70.
- **B.** \$781.20.
- **C.** \$804.44.
- **D.** \$853.20.

107 Correct answer is A

"Introduction to the Valuation of Debt Securities," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 398-399, 410-412

Study Session 15-67-e

compute the value of a zero-coupon bond

Interest rate is 5.6% = 5% + 0.6%. The semiannual interest rate is 2.8%. The price of the bond, using semiannual discounting is:

$$\frac{\$1000}{1.028^{10}} = \$758.70$$

108. An 8% coupon option-free bond maturing in 12 years is currently trading at a premium. Assuming market rates remain stable, over a period of 5 years, the value of the bond will *most likely*:

Select exactly 1 answer(s) from the following:

- A. Increase.
- B. Decrease.
- C. Remain constant.
- **D.** Increase or decrease depending on changes in volatility.

108 Correct answer is B

"Introduction to the Valuation of Debt Securities," Frank J. Fabozzi

2008 Modular Level I, Vol. 5, pp. 392-395

Study Session 15-67-d

explain how the price of a bond changes as the bond approaches its maturity date, and compute the change in value that is attributable to the passage of time

The bond's price should move downward toward par as time passes given that it trades at a premium and market rates are unchanged.

109. Which real estate valuation approach is *most likely* to use slope coefficients derived from a statistical analysis to estimate the value of a property?

Select exactly 1 answer(s) from the following:

- A. Cost approach
- **B.** Income approach
- C. Sales comparison approach
- **D.** Discounted after-tax cash flow approach

109 Correct answer is C

"Alternative Investments," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 6, pp. 191-192

Study Session 18-76-e

describe the various approaches to the valuation of real estate

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

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

An investor has gathered the following data, presented on an annual basis, for an apartment complex that is being considered for purchase:

Gross potential rental income	\$180,000
Insurance and taxes	\$15,000
Utilities	\$10,000

Repairs and maintenance	\$18,000
Depreciation	\$21,000
Interest on proposed financing	\$16,000

The annual net operating income (NOI) for the apartment complex is *closest* to:

Select exactly 1 answer(s) from the following:

- **A.** \$100,000.
- **B.** \$116,000.
- C. \$121,000.
- **D.** \$137,000.

110 Correct answer is D

"Alternative Investments," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 6, pp. 193-194

Study Session 18-76-f

calculate the net operating income (NOI) from a real estate investment, the value of a property using the sales comparison and income approaches, and the after-tax cash flows, net present value, and yield of a real estate investment

NOI = \$180,000 - \$15,000 - \$10,000 - \$18,000 = \$137,000

111. An investor would *most likely* expect commodities to have correlations with traditional stock or bond investments and inflation that are:

Correlation with traditional		Correlation with inflation
	stock or bond investments	
A.	Positive	Positive
B.	Positive	Negative
C.	Negative	Positive
D.	Negative	Negative

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- **D.** Answer**D.**

111 Correct answer is C

"Alternative Investments," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 6, pp. 227-228

Study Session 18-76-q

explain the motivation for investing in commodities, commodity derivatives, and commodity-linked securities

A primary motivation for an investment in commodities, commodity derivatives, commodity-linked bonds, and
commodity-linked equity are the diversification benefits provided due to the negative return correlation with other assets and
the positive correlation with inflation.

112. Hedge funds that contain infrequently traded assets would *most likely* exhibit a downward bias with respect to:

Select exactly 1 answer(s) from the following:

- **A.** measured risk but not correlations with conventional equity investments.
- **B.** correlations with conventional equity investments but not measured risk.
- C. both measured risk and correlations with conventional equity investments.
- **D.** neither measured risk nor correlations with conventional equity investments.

112 Correct answer is C

"Alternative Investments," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 6, pp. 220-222

Study Session 18-76-1

discuss the performance of hedge funds, the biases present in hedge fund performance measurement, and explain the effect of survivorship bias on the reported return and risk measures for a hedge fund database

The presence of infrequently traded assets leads to smoothed pricing that induces a significant downward bias to the measured risk of the assets as well as the correlations of returns with conventional equity and fixed income returns.

113. Venture capital investments used to provide capital for companies initiating commercial manufacturing and sales are *most likely* to be considered a form of:

Select exactly 1 answer(s) from the following:

- A. first-stage financing.
- **B.** mezzanine financing.
- C. second-stage financing.
- **D.** expansion-stage financing.
- 113 Correct answer is A

"Alternative Investments," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 6, pp. 220-222

Study Session 18-76-g

explain the stages in venture capital investing, venture capital investment characteristics and challenges to venture capital valuation and performance measurement

Venture capital investments provided to initiate commercial manufacturing and sales is considered a form of first-stage financing.

114. Which classification of hedge funds is *least likely* to use a short position in stock as a part of its strategy?

Select exactly 1 answer(s) from the following:

- **A.** Market-neutral funds
- **B.** Emerging-market funds
- C. Distressed securities funds
- **D.** Risk arbitrage in mergers and acquisitions
- 114 Correct answer is B

"Alternative Investments," Bruno Solnik and Dennis McLeavey

2008 Modular Level I, Vol. 6, pp. 211-213

Study Session 18-76-i

discuss the descriptive accuracy of the term "hedge fund," define hedge fund in terms of objectives, legal structure, and fee structure, and describe the various classifications of hedge funds

Emerging-market funds invest in less liquid and less efficient assets of emerging markets that are difficult to short.

115. Which of the following constraints would *most likely* appear in the unique needs and preferences section of a trust's investment policy statement? The portfolio is:

Select exactly 1 answer(s) from the following:

- A. subject to the prudent-man standard.
- **B.** subject to income taxes of 40%.
- **C.** prohibited from investing in tobacco companies.
- \mathbf{D}_{\bullet} prohibited from holding less than 5% in cash instruments.
- 115 Correct answer is C

"The Asset Allocation Decision," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 4, pp. 210-216

Study Session 12-49-d

describe the investment constraints of liquidity, time horizon, tax concerns, legal and regulatory factors, and unique needs and preferences

Unique needs and preferences include the prohibition of certain investments. The investment constraints of liquidity, tax concerns, and legal and regulatory factors adequately address the portfolio's other constraints.

116. The final step in the portfolio management process is *most likely* to include:

Select exactly 1 answer(s) from the following:

A. investment research.

- **B.** portfolio construction.
- C. evaluation of portfolio performance.
- **D.** evaluation of investor's investment knowledge.

116 Correct answer is C

"The Asset Allocation Decision," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 4, pp. 202-203

Study Session 12-49-a

describe the steps in the portfolio management process, and explain the reasons for a policy statement

The final step in the portfolio management process includes evaluating portfolio performance. Evaluation of investor's investment knowledge, investment research, and portfolio construction are part of the first three steps in the process.

117. The second step of the portfolio management process is *least likely* to include examining:

Select exactly 1 answer(s) from the following:

- A. historical trends.
- **B.** current social conditions.
- C. projected financial forecasts.
- **D.** current and projected political conditions.

117 Correct answer is A

"The Asset Allocation Decision," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 4, pp. 202-203

Study Session 12-49-a

describe the steps in the portfolio management process, and explain the reasons for a policy statement

The second step in the portfolio management process includes examining current and projected financial, economic, political, and social conditions. Historical trends may be educational, but the focus of the second phase is determining the short-term and intermediate-term expected conditions to use in constructing a specific portfolio.

118. Over time, the major source of investment return and risk is most likely attributed to:

Select exactly 1 answer(s) from the following:

- **A.** market timing.
- B. stockSelection.
- C. asset allocation.
- **D.** risk management.

118 Correct answer is C

"The Asset Allocation Decision," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 4, pp. 218-220

Study Session 12-49-e

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

The asset allocation decision explains about 90% of a fund's returns over time. Across all funds, asset allocation explains an average of 40% of the variation in fund returns, and slightly more than 100% of the average fund's level of return.

119. When compared to investors living in a country with high inflation, investors living in a country with generous state pensions will *most likely* have allocations to equities and fixed income investments, respectively, that are:

	<u> </u>	_
	<u>Equities</u>	Fixed Income
A.	Lower	Lower
B.	Lower	Higher
C.	Higher	Lower
D.	Higher	Higher

Select exactly 1 answer(s) from the following:

A. AnswerA.

- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

119 Correct answer is C

"The Asset Allocation Decision," Frank K. Reilly and KeithC. Brown

2008 Modular Level I, Vol. 4, pp. 223-224

Study Session 12-49-e

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

The need to invest for portfolio growth is higher in inflationary environments and lower in countries where workers receive generous state pensions.

120. An analyst gathered the following information about a portfolio comprised of two assets:

Asse	Wei	Expected Return	Expected Standard Deviation
t	ght%	E(R)	$E(\sigma)$
X	60	11%	5%
Y	40	7%	4%

If the covariance of returns for the two assets equals 0.75, then the expected return and expected standard deviation of the portfolio are *closest* to:

	Expected Return	Expected
		Standard <u>Deviation</u>
A.	8.6%	4.3%
B.	8.6%	18.7%
C.	9.4%	4.3%
D.	9.4%	18.7%

Select exactly 1 answer(s) from the following:

- A. AnswerA.
- B. AnswerB.
- C. AnswerC.
- D. AnswerD.

120 Correct answer is C

"An Introduction to Portfolio Management," Frank K. Reilly and Keith C. Brown 2008

Modular Level I, Vol. 4, pp. 230-245

Study Session 12-50-c

compute and interpret the expected return, variance, and standard deviation for an individual investment and the expected return and standard deviation for a portfolio

The expected return of the portfolio is the weighted average return of the two

assets =
$$0.60 \times 11 + 0.40 \times 7 = 9.4\%$$
.

The expected standard deviation of the portfolio is calculated as:

$$= \sqrt{\,w_1{}^2\,\sigma_1{}^2 + w_2{}^2\,\sigma_2{}^2 + 2\,\,w_1\,\,w_2\,r_{1,2}\,\sigma_1\sigma_2} \ \ \text{or} \ [w_1{}^2\,\sigma_1{}^2 + w_2{}^2\,\sigma_2{}^2 + 2\,\,w_1\,\,w_2\,r_{1,2}\,\sigma_1\sigma_2]^{0.5}$$

- = $[(0.602 \times 0.052) + (0.402 \times 0.042) + (2 \times 0.60 \times 0.40 \times 0.75 \times 0.05 \times 0.04)]0.5$
- = [0.0009 + 0.000256 + 0.00072]0.5
- $= [0.001876]0.5 = 0.0433 \approx 4.3\%$