1. Vishal Chandarana, an unemployed research analyst, recently registered for the CFA Level I exam. After two months of intense interviewing, he accepts a job with a stock brokerage company in a different region of the country. Chandarana posts on a blog how being a CFA candidate really helped him get a job. He also notes how relieved he was when his new employer did not ask him about being fired from his former employer. Which CFA Institute Standards of Professional Conduct did Chandarana *least likely* violate?

   A. Loyalty to Employers
   B. Reference to CFA Institute, the CFA Designation, and the CFA Program
   C. Misconduct

   Answer = B

   There is no evidence Chandarana violated Standard VII(B)–Reference to CFA Institute, the CFA Designation, and the CFA Program with regard to his being a CFA candidate. Specifically, Chandarana does not overstate his competency or imply he will achieve superior performance as a result of his CFA designation. It does appear, however, Chandarana did not act with integrity when he hid information that could potentially harm his new employer's reputation, thus violating Standard I(D)–Misconduct and Standard IV(A)–Loyalty.

   CFA Level I
   "Guidance for Standards I–VII"
   Standard VII(B)–Reference to CFA Institute, the CFA Designation, and the CFA Program, Standard I(D)–Professionalism, Standard IV(A)–Duty to Employers

2. David Donnigan enrolled to take the Level II CFA examination in the current year, but he did not take the exam. Donnigan advised his employer that he passed Level II. Subsequently, he registered to take the Level II exam the next year. Which CFA Institute Standards of Professional Conduct did Donnigan *least likely* violate? The standard related to:

   A. referencing candidacy in the CFA Program.
   B. duty to employer.
   C. professional misconduct.

   Answer = A

   Because he registered to take the exam in the next year, Donnigan still qualifies to state he is a candidate in the CFA Program. He would not, however, be authorized to reference that he is a Level III candidate and, if asked, would need to specifiy that he is a Level II candidate.

   CFA Level I
   "Guidance for Standards I-VII," CFA Institute
   Standard I(D), Standard IV(A)

3. Ian O'Sullivan, CFA, is the owner and sole employee of two companies, a public relations firm and a financial research firm. The public relations firm entered into a contract with Mallory Enterprises to provide public relations services, with O'Sullivan receiving 40,000 shares of Mallory stock in payment for his services. Over the next 10 days, the public relations firm issued several press releases that discussed Mallory's excellent growth prospects. O'Sullivan, through his financial research firm, also published a research report recommending Mallory stock as a "buy." According to the CFA Institute Standards of Professional Conduct, O'Sullivan is *most likely* required to disclose his ownership of Mallory stock in:

   A. the press releases only.
   B. the research report only.
   C. both the press release and the research report.

   Answer = C

   Members should disclose all matters that reasonably could be expected to impair the member's objectivity as outlined in Standard I(B), and Standard VI(A).

   CFA Level I
   "Guidance for Standards I-VII," CFA Institute
   Standard I(B), Standard VI(A)

4. James Woods, CFA, is a portfolio manager at ABC Securities. Woods has reasonable grounds to believe his colleague, Sandra Clarke, a CFA Level II candidate, is engaged in unethical trading activities that may also be in violation of local securities laws. Woods is not Clarke's supervisor, and her activities do not impact Woods or any of the portfolios for which he is responsible. Based on the Code and Standards, the recommended course of action is for Woods to:

   A. report Sandra Clarke to ABC's trading supervisor or compliance department.
   B. not take any action because he is not directly involved.
   C. report Sandra Clarke to the appropriate governmental or regulatory organization.

   Answer = A

   Under Standard 1(A) in situations where a member or candidate is aware of employer engagement in unethical or illegal activity, it is recommended that they attempt to stop the behavior by bringing it to the attention of a supervisor or the firm's compliance department.

   CFA Level I
   "Guidance for Standards I-VII," CFA Institute
   Standard I(A)

5. After a firm presents a minimum required number of years of GIPS- compliant performance, the firm must present an additional year of performance each year, building up to a minimum of:

   A. 10 years of GIPS-compliant performance.
   B. 15 years of GIPS-compliant performance.
   C. 5 years of GIPS-compliant performance.

   Answer = A

After a firm presents a minimum of five years of GIPS-compliant performance, the firm must present an additional year of performance each year, building up to a minimum of 10 years of GIPS-compliant performance.

CFA Level I
"The GIPS Standards," CFA Institute
Section: Historical Performance Record

6. Madeline Smith, CFA, was recently promoted to senior portfolio manager. In her new position, Smith is required to supervise three portfolio managers. Smith asks for a copy of her firm's written supervisory policies and procedures but is advised that no such policies are required by regulatory standards in the country where Smith works. According to the *Standards of Practice Handbook*, Smith's *most* appropriate course of action would be to:

   A. decline to accept supervisory responsibility until her firm adopts procedures to allow her to adequately exercise such responsibility.
   B. require the employees she supervises to adopt the CFA Institute Code of Ethics and Standards of Professional Conduct.
   C. require her firm to adopt the CFA Institute Code of Ethics and Standards of Professional Conduct.

   Answer = A

   According to guidance for Standard (IV(C), if a member cannot fulfill supervisory responsibilities because of the absence of a compliance system or because of an inadequate compliance system, the member should decline in writing to accept supervisory responsibility until the firm adopts reasonable procedures to allow the member to adequately exercise such responsibility.

   CFA Level I
   "Guidance for Standards I-VII," CFA Institute
   Standard IV(C)

7. Nicholas Bennett, CFA, is a trader at a stock exchange. Another trader approached Bennett on the floor of the exchange and verbally harassed him about a poorly executed trade. In response, Bennett pushed the trader and knocked him to the ground. After investigating the incident, the exchange cleared Bennett from any wrongdoing. Which of the following *best* describes Bennett's conduct in relation to the CFA Institute Code of Ethics or Standards of Professional Conduct? Bennett:

   A. violated the standard relating to professionalism.
   B. did not violate any of the Code of Ethics or Standards of Professional Conduct.
   C. violated both the standard relating to professionalism and integrity of capital markets.

   Answer = A

   The CFA Institute Code of Ethics requires members to act with integrity, competence, diligence, respect, and in an ethical and professional manner. The Standards of Professional Conduct relating to professional misconduct state members and candidates must not commit any act reflecting adversely on their professional reputation, integrity, or competence. Bennett's actions violated the Code of Ethics and StandardI(D)–Professionalism, but not Standard II–Integrity of Capital Markets.

   CFA Level I
   "Guidance for Standards I-VII," CFA Institute
   Standard I(D), Standard II

8. According to the CFA Institute Code of Ethics and Standards of Professional Conduct, trading on material nonpublic information is *least likely* to be prevented by establishing:

   A. personal trading limitations.
   B. selective disclosure.
   C. firewalls.

   Answer = B

   Selective disclosure occurs when companies discriminate in making material nonpublic information public. Corporations that disclose information on a limited basis create the potential for insider-trading violations. See Standard II(A).

   CFA Level I
   "Guidance for Standards I-VII," CFA Institute
   Standard II(A)

9. During an on-site company visit, Marsha Ward, CFA, accidentally overheard the chief executive officer of Stargazer, Inc. discussing the company's tender offer to purchase Dynamica Enterprises, a retailer of Stargazer products. According to the CFA Institute Standards of Professional Conduct, Ward *most likely* cannot use the information because:

   A. it was overheard and might be considered unreliable.
   B. she does not have a reasonable and adequate basis for taking investment action.
   C. it relates to a tender offer.

   Answer = C

   Trading on the information is restricted given that it relates to a tender offer; it is clearly material, nonpublic information as stated in Standard II(A).

   CFA Level I
   "Guidance for Standards I-VII," CFA Institute
   Standard II(A)

10. According to the Global Investment Performance Standards (GIPS), firms must do all of the following *except*:

    A. adhere to certain calculation methodologies and make specific disclosures along with their performance.
    B. provide investors with a comprehensive view of their performance only in terms of returns.
    C. comply with all requirements of the GIPS standards, such as updates, guidance statements, and clarifications.

    Answer = B

    Firms must provide investors with a comprehensive view of their performance in terms of risk and returns, not just returns.

    CFA Level I
    “The GIPS Standards,” CFA Institute
    Section: Overview

11. Adira Badawi, CFA, who owns a research and consulting company, is an independent board member of a leading cement manufacturer in a small local market. Because of Badawi's expertise in the cement industry, a foreign cement manufacturer looking to enter the local market has hired him to undertake a feasibility study. Under what circumstances can Badawi *most likely* undertake the assignment without violating the CFA Institute Code of Ethics and Standards of Professional Conduct?

    A. He makes full disclosure to both companies.
    B. He signs confidentiality agreements with both companies.
    C. He receives written permission from the local company.

    Answer = A

    Making full and fair disclosure of all matters that could reasonably be expected to impair one's independence and objectivity or interfere with respective duties to one's clients is required by Standard VI(A)–Disclosure of Conflicts.

    CFA Level I
    "Guidance for Standards I–VII"
    Standard VI(A)–Disclosure of Conflicts

12. Which of the following is *not* a component of the CFA Institute Code of Ethics?

    A. Promote financial integrity and seek to prevent and punish abuses in the financial markets.
    B. Practice and encourage others to practice in a professional and ethical manner that will reflect credit on themselves and the profession.
    C. Place the integrity of the investment profession and the interests of clients above your own personal interests.

    Answer = A

    Punishing abuse in the financial markets is not one of the six components of the Code of Ethics.

    CFA Level I
    "Code of Ethics," CFA Institute
    Section: The Code of Ethics

13. According to the Global Investment Performance Standards (GIPS), which of the following is not a part of the verification process? Testing whether the:

    A. firm has complied with all the composite construction requirements.
    B. verification is undertaken by the compliance department in the absence of a third party.
    C. firm's processes and procedures are designed to calculate results in compliance with GIPS standards.

    Answer = B

CFA Level I
"Introduction to the Global Investment Performance Standards (GIPS)," CFA Institute, 2011

14. Jiro Sato, CFA, deputy treasurer for May College, manages the Student Scholarship Trust. Sato issued a request for proposal (RFP) for domestic equity managers. Pamela Peters, CFA, a good friend of Sato, introduces him to representatives from Capital Investments, which submitted a proposal. Sato selected Capital as a manager based on the firm's excellent performance record. Shortly after the selection, Peters, who had outstanding performance as an equity manager with another firm, accepted a lucrative job with Capital. Which of the CFA charterholders violated the CFA Institute Standards of Professional Conduct?

A. Both
B. Neither
C. Peters

Answer = B

Members should use reasonable care and judgment to maintain independence and objectivity, as stated in Standard I (B). There is no indication of inappropriate behavior in the selection of the equity manager or in the acceptance of employment with that manager; both decisions were based on the excellent performance records of the manager and the member, respectively.

CFA Level I
"Guidance for Standards I-VII," CFA Institute
Standard I(B)

15. Claire Jones, CFA, is an analyst following natural gas companies in the United States. At an industry energy conference, the chief financial officer of Alpine Energy states that the company is interested in making strategic acquisitions. At a separate event, Alpine's head of exploration commented that he is bullish on natural gas production prospects within northeastern Pennsylvania. Jones is aware that Alpine currently has very little exposure to this region. She also knows another company in her universe, Pure Energy, Inc. is based in northeastern Pennsylvania and controls significant assets in the area. Pure Energy is highly leveraged, and Jones believes it will need to raise additional capital or partner with another firm to move to the production phase with their assets. Jones attempts to contact Alpine's chief executive officer with an unrelated question and is told he is unavailable because he is on a business trip to northeastern Pennsylvania. Jones updates her research on Pure Energy and then recommends the stock to Lisa Wong, CFA, a portfolio manager, who purchases significant positions in client accounts. The following week, Pure Energy announces it has entered into an agreement to be purchased by Alpine for a significant premium. Has either Jones or Wong *most likely* violated standards with regard to the integrity of capital markets?

A. Yes, Jones' recommendation is based on insider information
B. No
C. Yes, both Jones and Wong have acted on insider information

Answer = B

Jones has used the mosaic theory to combine nonmaterial, nonpublic information with material public information.

CFA Level I
"Guidance for Standards I-VII," CFA Institute
Standard II(A) Material Nonpublic Information

16. Ron Dunder, CFA, is the CIO for Bling Trust (BT), an investment adviser. Dunder recently assigned one of his portfolio managers, Doug Chetch, to manage several accounts that primarily invest in thinly traded micro-cap stocks. Dunder soon notices that Chetch places many stock trades for these accounts on the last day of the month, toward the market's close. Dunder finds this trading activity unusual and speaks to Chetch, who explains that the trading activity was completed at the client's request. Dunder does not investigate further. Six months later, regulatory authorities sanction BT for manipulating micro-cap stock prices at month end in order to boost account values. Did Dunder violate any CFA Institute Standards of Professional Conduct?

A. Yes, because he failed to reasonably supervise Chetch.
B. Yes, because he did not report his findings to regulatory authorities.
C. No.

Answer = A

The CFA Institute Code and Standard on Responsibilities of Supervisors, Standard IV (C), requires members/candidates to take steps to detect and prevent violations of laws, rules and regulations. Dunder failed in his supervisory role when he accepted Chetch's explanation of the unusual trading activity. Dunder should have reviewed the client's goals and objectives, as well as records, to see whether the client in fact requested month-end trading. Regardless of the explanation provided by Chetch, Dunder should have investigated further.

CFA Level I
"Guidance for Standards I-VII," CFA Institute
Standard IV(C)

17. The Global Investment Performance Standards *least likely* require:

A. nondiscretionary portfolios to be included in composites.
B. non-fee-paying portfolios to be excluded in the returns of appropriate composites.
C. composites to be defined according to similar investment objectives and/or strategies.

Answer = A

Composites (Standard IV – Composites) must be defined according to similar investment objectives and/or strategies. Terminated portfolios must be included in the historical returns of appropriate composites, and only fee-paying portfolios are to be included in composites. Non-discretionary portfolios must not be included in a firm's composites.

CFA Level I
"Introduction to the Global Investment Performance Standards (GIPS)," CFA Institute

18. Jefferson Piedmont, CFA, a portfolio manager for Park Investments, plans to manage the portfolios of several family members in exchange for a percentage of each portfolio's profits. Because his family members have extensive portfolios requiring substantial attention, they have requested that Piedmont provide the services outside of his employment with Park. Piedmont notifies his employer in writing of his prospective outside employment. Two weeks later, Piedmont begins managing the family members' portfolios. By managing these portfolios, which of the following CFA Institute Standards of Professional Conduct has Piedmont violated?

A. Conflicts of Interest
B. Additional Compensation
C. Both Additional Compensation and Conflicts of Interest

Answer = C

According to Standard IV(B) and Standard VI(A), members should disclose all potential conflicts of interest, should disclose the substantial time involved in managing family accounts and, when engaging in independent practice for compensation, should not render services until receiving written consent from all parties.

CFA Level I
"Guidance for Standards I-VII," CFA Institute
Standard IV(B), Standard VI(A)

19. Monte Carlo simulation is *best* described as:

A. a restrictive form of scenario analysis.
B. providing a distribution of possible solutions to complex functions.
C. an approach to backtest data.

Answer = B

Monte Carlo simulation provides a distribution of possible solutions to complex functions. The central tendency and the variance of the distribution of solutions give important clues to decision makers regarding expected results and risk.

CFA Level I
"Common Probability Distributions," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 4

20. The belief that trends and patterns tend to repeat themselves and are, therefore, somewhat predictable *best* describes:

A. arbitrage pricing theory.
B. technical analysis.
C. weak-form efficiency.

Answer = B

Technical analysts believe that trends and patterns tend to repeat themselves and are, therefore, somewhat predictable.

CFA Level I
"Technical Analysis," Barry M. Sine and Robert A. Strong
Section 2.1

21. Which of the following *most* accurately describes a distribution that is more peaked than normal?

A. Mesokurtotic
B. Platykurtotic
C. Leptokurtotic

Answer = C

A distribution that is more peaked than normal is called leptokurtotic.

CFA Level I
"Statistical Concepts and Market Returns," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 9

22. Using the following sample results drawn as 25 paired observations from their underlying distributions, test whether the mean returns of the two portfolios differ from each other at the 1% level of statistical significance. Assume the underlying distributions of returns for each portfolio are normal and that their population variances are not known.

	Portfolio 1	**Portfolio 2**	**Difference**
Mean return	17.00	21.25	4.25
Standard deviation	15.50	15.75	6.25
t-statistic for 24 degrees of freedom and at the 1% level of statistical significance = 2.807			
Null hypothesis (H_0): Mean difference of returns = 0			

Based on the paired comparisons test of the two portfolios, the *most* appropriate conclusion is that H_0 should be:

A. accepted because the computed test statistic is less than 2.807.
B. rejected because the computed test statistic exceeds 2.807.
C. accepted because the computed test statistic exceeds 2.807.

Answer = B

The test statistic is: $\frac{\bar{d} - \mu_{d0}}{s_d / \sqrt{n}}$ where $\bar{d}$ is the mean difference, μ_{d0} is the hypothesized difference in the means, s_d is the sample standard deviation of differences, and n is the

sample size. In this case, the test statistic equals: $(4.25 – 0)/(6.25/\sqrt{25}) = 3.40$. Because 3.40 > 2.807, the null hypothesis that the mean difference is zero is rejected.

CFA Level I
"Hypothesis Testing," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 3.3

23. The null hypothesis is *most likely* to be rejected when the *p*-value of the test statistic:

A. exceeds a specified level of significance.
B. is negative.
C. falls below a specified level of significance.

Answer = C

If the *p*-value is less than the specified level of significance, the null hypothesis is rejected.

CFA Level I
"Hypothesis Testing," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 2

24. Over the past four years, a portfolio experienced returns of –8%, 4%, 17%, and –12%. The geometric mean return of the portfolio over the four-year period is *closest* to:

A. 0.99%.
B. –0.37%.
C. 0.25%.

Answer = B

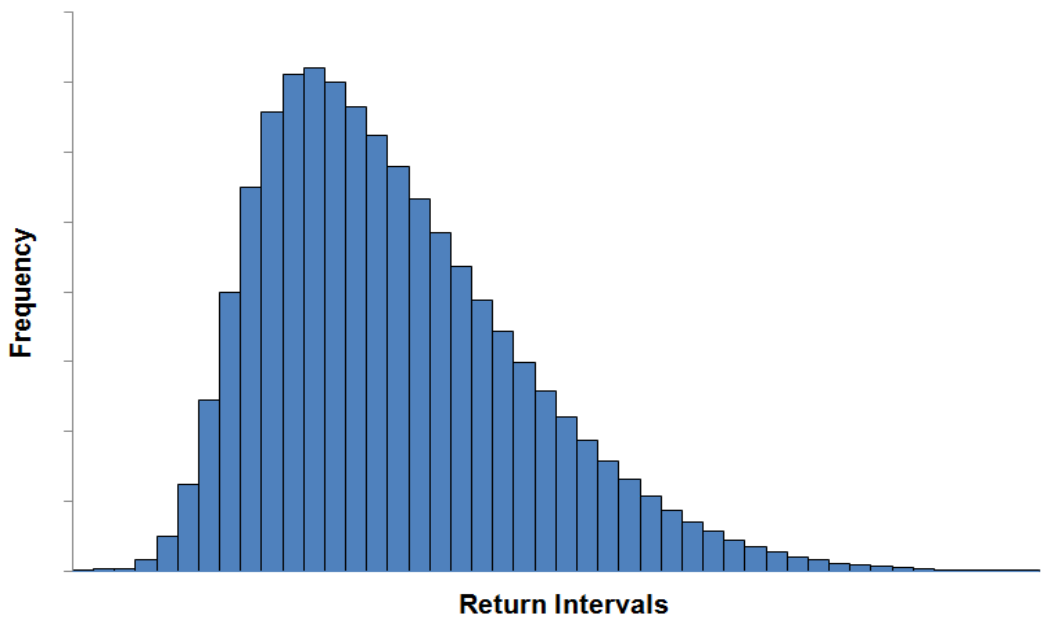
Add one to each of the given returns, then multiply them together and take the fourth root of the resulting product. 0.92 × 1.04 × 1.17 × 0.88 = 0.985121; 0.985121 raised to the 0.25 power is 0.996259. Subtracting one and multiplying by 100 gives the correct geometric mean return: $[(0.92 \times 1.04 \times 1.17 \times 0.88)^{0.25} – 1] \times 100 = –0.37\%$.

CFA Level I
"Statistical Concepts and Market Returns," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 5.4.2

25.

The figure to the right shows the histogram for the distribution of weekly returns on an index.

The median of the returns on the index, if compared to the mean, will *most likely* be:



A. equal.
B. greater.
C. smaller.

Answer = C

The histogram clearly shows that the return distribution of the index is positively skewed (skewed to the right) and is unimodal (it has one most frequently occurring value). For a positively skewed unimodal distribution, the median is always less than the mean.

CFA Level I
"Statistical Concepts and Market Returns," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Sections 4.1, 5.3, 8

26. Based on historical returns, a portfolio has a Sharpe ratio of 2.0. If the mean return to the portfolio is 20%, and the mean return to a risk-free asset is 4%, the standard deviation of return on the portfolio is *closest* to:

A. 12%.
B. 8%.
C. 10%.

Answer = B

The Sharpe ratio for a portfolio *p*, based on historical returns, is defined as

$$S_h = \frac{\bar{R}_p - \bar{R}_F}{s_p}$$

where $\bar{R}_p$ is the mean return to the portfolio, $\bar{R}_F$ is the mean return to a risk-free asset, and s_p is the standard deviation of return on the portfolio. In this instance, 2 = (20% – 4%)/s_p. Solving for s_p: s_p = (20% – 4%)/2 = 8%.

CFA Level I
"Statistical Concepts and Market Returns," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 7.8

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

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

The sample standard deviation is *closest* to:

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

Answer = A

$\bar{X} = \sum_i^n X_i/n = (-3 - 11 + 3 - 18 + 18 + 20 - 6 + 9 + 2 - 16)/10 = -2.00/10 = -0.20.$

The sample variance is:

$s^2 = \sum_i^n (X_i - \bar{X})^2/(n - 1).$

The sample standard deviation is the (positive) square root of the sample variance.

Value	Difference vs. Mean [Value – (–0.20)]	Difference Squared
–3	–2.8	7.84
–11	–10.8	116.64
3	3.2	10.24
–18	–17.8	316.84
18	18.2	331.24
20	20.2	408.04
–6	–5.8	33.64
9	9.2	84.64
2	2.2	4.84
–16	–15.8	249.64
	Sum of squared differences	1563.6
	Divided by *n* – 1	173.7333333
	Square root	13.18079411

CFA Level I
"Statistical Concepts and Market Returns," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 7.4

28. The following ten observations are a sample drawn from an approximately normal population:

Observation	1	2	3	4	5	6	7	8	9	10
Value	–31	–14	3	–18	34	20	–6	9	7	–16

The sample standard deviation is *closest* to:

A. 17.56.
B. 18.58.
C. 19.59.

Answer = C

The sample mean is calculated as follows:

$\bar{X} = \sum_i^n X_i/n = (-31 - 14 + 3 - 18 + 34 + 20 - 6 + 9 + 7 - 16)/10 = -12.00/10 = -1.20$,
where
X_i is the value of the ith observation and
n is the number of observations in the sample.
The sample variance is:
$s^2 = \sum_i^n (X_i - \bar{X})^2/(n-1)$
The sample standard deviation is the (positive) square root of the sample variance:

Value	Deviation from Mean	Squared Deviation
–31	–31 – (–1.2) = –29.8	888.04
–14	–14 – (–1.2) = –12.8	163.84
3	3 – (–1.2) = 4.2	17.64
–18	–18 – (–1.2) = –16.8	282.24
34	34 – (–1.2) = 35.2	1,239.04
20	20 – (–1.2) = 21.2	449.44
–6	–6 – (–1.2) = –4.8	23.04
9	9 – (–1.2) = 10.2	104.04
7	7 – (–1.2) = 8.2	67.24
–16	–16 – (–1.2) = –14.8	219.04
	Sum of squared deviations	3,453.60
	Divided by n – 1 (10 – 1)	3,453.60/9 = 383.73
	Square root	$\sqrt{383.73}$ = 19.59

CFA Level I
"Statistical Concepts and Market Returns," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Sections 5.1.2, 7.4.

29. The minimum rate of return an investor must receive in order to accept an investment is *best* described as the:

A. internal rate of return.
B. required rate of return.
C. expected return.

Answer = B

The required rate of return is the minimum rate of return an investor must receive in order to accept an investment.

CFA Level I
"The Time Value of Money," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 2

30. Which of the following *most* accurately describes how to standardize a random variable *X*?

A. Subtract the mean of *X* from *X*, and then divide that result by the standard deviation of *X*.
B. Subtract the mean of *X* from *X*, and then divide that result by the standard deviation of the standard normal distribution.
C. Divide *X* by the difference between the standard deviation of *X* and the standard deviation of the standard normal distribution.

Answer = A

There are two steps in standardizing a random variable *X*: Subtract the mean of *X* from *X*, and then divide that result by the standard deviation of *X*. This is represented by the following formula: $Z = (X - \mu)/\sigma$.

CFA Level I
"Common Probability Distributions," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 3.2

31. A descriptive measure of a population characteristic is *best* described as a:

A. parameter.
B. frequency distribution.
C. sample statistic.

Answer = A

Any descriptive measure of a population characteristic is called a parameter.

CFA Level I
“Statistical Concepts and Market Returns,” Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 2.2

32. In generating an estimate of a population parameter, a larger sample size is *most likely* to improve the estimator's:

A. consistency.
B. efficiency.
C. unbiasedness.

Answer = A

A consistent estimator is one for which the probability of estimates close to the value of the population parameter increases as the sample size increases. Unbiasedness and efficiency are properties of an estimator's sampling distribution that hold for any size sample.

CFA Level I
"Sampling and Estimation," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 4.1

33. The probability of Event A is 40%. The probability of Event B is 60%. The joint probability of AB is 40%. The probability (P) that A or B occurs, or both occur, is *closest* to:

A. 60%.
B. 40%.
C. 84%.

Answer = A

P(A or B) = P(A) + P(B) – P(AB) = 0.40 + 0.60 – 0.40 = 0.60 or 60%.

CFA Level I
"Probability Concepts," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
Section 2

34. Which of the following statements with respect to Giffen and Veblen goods is *least* accurate?

A. Giffen goods are "inferior," whereas Veblen goods are "high-status" goods.
B. Both types of goods violate the fundamental axioms of demand theory.
C. Both types of goods demonstrate the possibility of a positively sloping demand curve.

Answer = B

Veblen goods violate the fundamental axioms of demand theory, whereas Giffen goods do not.

CFA Level I
"Demand and Supply Analysis: Consumer Demand," Richard V. Eastin and Gary L. Arbogast
Sections 6.4, 6.5

35. The aggregate demand and supply functions for the local market for pizza, along with some relevant data, is provided in the following table.

$Q^D_{Pizza} = 13{,}500 – 2{,}020\ P_{Pizza} + 0.07\ I - 0.31\ P_{Cola}$	
$Q^S_{Pizza} = -4{,}000 + 1{,}219\ P_{Pizza} - 91\ W$	
Q^D, Q^S are the number of pizzas ordered and supplied P, W, I refer to the prices, wage rate and monthly income	
	Related Data
Price of a pizza	$5/pizza
Aggregate monthly income	$2,050
Price of cola per bottle	$1.35/bottle
Wage rate paid to pizza personnel	$10

The number of units of excess demand for pizza is *closest* to:

A. 2,358.
B. 1,471.
C. 2,072.

Answer = A

Quantity Demanded at Current Price
$Q^D_{Pizza} = 13{,}500 – 2{,}020\ P_{Pizza} + 0.07\ I - 0.31\ P_{Cola}$ $= 13{,}500 – (2{,}020 \times 5) + (0.07 \times 2{,}050) – (0.31 \times 1.35) = 3{,}543$ units
Quantity Supplied at Current Price
$Q^S_{Pizza} = -4{,}000 + 1{,}219\ P_{Pizza} - 91\ W$ $= -4{,}000 + (1{,}219 \times 5) - (91 \times 10) = 1{,}185$
There is excess demand of 3,543 – 1,185 = **2,358** at the current price of $5

CFA Level I
"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast
Section 3.6

CFA Level I
"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast
Section 3.6

36. A consumer has a budget of $30 per month to spend on two types of fruit, priced as follows:
    • Apples: $2.50 per pound.
    • Bananas: $2.00 per pound.

    Assuming the quantity of apples is measured on the vertical axis and bananas on the horizontal axis, the slope of the budget constraint is *closest* to:

    A. 1.25.
    B. –0.80.
    C. –1.25.

    Answer = B

    The budget constraint is given by the formula: 2.5 Q_A + 2.0 Q_B = 30, where Q_A and Q_B are quantities ofapples and bananas purchased, respectively. With the quantity of apples measured on the vertical axis, the slope is equal to $–(P_B/P_A)$ = –(2.00/2.50) = – 0.8, where P_A and P_B are prices ofapples and bananas, respectively.

    CFA Level I
    "Demand and Supply Analysis: Consumer Demand," Richard V. Eastin and Gary L. Arbogast
    Section 4.1

37. Over a given period, the price of a commodity falls by 5.0%, and the quantity demanded rises by 7.5%. The price elasticity of demand for the commodity is *best* described as:

    A. elastic.
    B. perfectly elastic.
    C. inelastic.

38. The following information applies to a start-up company solely owned by an entrepreneur.

	Value
Total units produced	3,550
Average revenue	$1,110
Average variable cost	$750
Total fixed cost	$300,000
Total investment	$1,550,000
Required rate of return	12.5%
Opportunity cost of owner’s labor	$125,000

    The company's economic profit is *closest to*:

    A. $784,250.

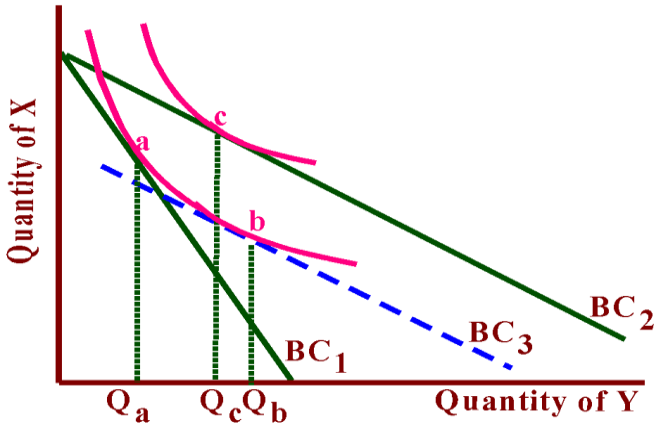
B. $318,750.
C. $659,250.

Answer = C

Economic profit = Accounting profit - Total implicit opportunity costs			
where Accounting profit = Total revenue – Total variable costs – Total fixed costs			
and Total opportunity costs = opportunity cost of capital + opportunity cost of labor			
Total revenue	3,550 × $1,110	$3,940,500	# units × average revenue
Less Total variable costs	3,550 × $750	$2,662,500	# units × average var cost
Less Total fixed costs		$300,000	given
Accounting profit		$978,000	
Opportunity cost of capital	$1,550,000 × 0.125	$193,750	Investment x Required return
Opportunity cost of owner's labor		$125,000	Given
Total opportunity costs		$318,750	
Economic profit		**$659,250**	

CFA Level I
"Demand and Supply Analysis: The Firm," Gary L. Arbogast, and Richard V. Eastin
Sections 2.1.2, 3

39. The diagram to the below illustrates a consumer's allocation of her budget between items X and Y. With an initial budget ($BC_{1)}$ she consumes Q_a units of item Y. When the price of Y drops, she consumes Q_c units of item Y. Lines BC_2 and BC_3 are parallel to one another.



The income effect arising from this change in the price of Y is *best* described as the distance between:

A. Q_b and Q_a.
B. Q_c and Q_a.
C. Q_c and Q_b.

Answer = C

When the price of *Y* falls, the budget constraint shifts outward from BC_1 to BC_2, indicatingan increase in the consumption of *Y*. Points *a* and *b* reflect the change in consumption of *Y* due solely to a decrease in price because BC_3 reduces her income by a sufficient amount to return her to her original indifference curve. $Q_c - Q_b$ is the income effect (which is negative here) because it is an inferior good.

CFA Level I
"Demand and Supply Analysis: Consumer Demand," Richard V. Eastin and Gary L. Arbogast
Section 6.3

40. Which of the following is *most likely* to cause a shift to the right in the aggregate demand curve?

A. Increase in taxes
B. Decrease in real estate values
C. Boom in the stock market

Answer = C

A boom in the stock market increases the value of financial assets and household wealth. An increase in household wealth increases consumer spending and shifts the aggregate demand curve to the right.

CFA Level I
"Aggregate Output, Prices, and Economic Growth," Paul R. Kutasovic and Richard G. Fritz
Section 3.3.1

41. The price of a good falls from $15 to $13. Given this decline in price, the quantity demanded of the good rises from 100 units to 120 units. The arc price elasticity of demand for the good is *closest* to:

A. 1.3.
B. 1.5.
C. 10.0.

Answer = A

Arc price elasticity of demand is calculated as: $\%\Delta Q / \%\Delta P = (\Delta Q / Q_{avg}) / (\Delta P / P_{avg})$.

In this case, (20/110)/(2/14) = 1.27 rounded to 1.3.

CFA Level I
"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast
Section 4.1

42. If the quantity demanded of pears falls by 4% when the price of apples decreases by 3%, then apples and pears are *best* described as:

A. inferior goods.
B. complements.
C. substitutes.

Answer = C

The cross elasticity of demand is defined as the percentage change in quantity demanded divided by the percentage change in the price of a substitute or complement. If the cross elasticity of demand is positive, the goods are substitutes. In this case, the 4% decline in quantity of pears is divided by the 3% decline in the price of apples, which is a positive number: –4/–3 = +1.33.

CFA Level I
"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast
Section 4.4

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

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

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

A. $4.50, all firms should continue to operate in the short run, but exit the market in the long run if these conditions are expected to persist.
B. $3.00, Firm X should continue to operate in the short run, but Firms Y and Z should shut down production.
C. $6.00, all firms should exit the market in the long run.

Answer = B

Revenue-Cost Relationship	**Short-Run Decision**	**Long-Term Decision**
TR ≥ TC	Stay in market	Stay in market
TR > TVC but TR<TFC+TVC	Stay in market	Exit market
TR < TVC	Shut down production to zero	Exit market
where TR = Total Revenue;		
and TC = Total Costs; TVC = Total Variable Costs; TFC = Total Fixed Costs		
Hence, if the selling price is $3.00, total revenue for all firms will be $3.00/unit × 900 units = $2,700. Only firm X's variable costs are covered and it should continue operating, while firms Y and Z should immediately shutdown production.		

CFA Level I
"Demand and Supply Analysis: The Firm," Gary L. Arbogast and Richard V. Eastin
Section 3.1.3

44. The following international trade information is available for a hypothetical economy:

	Exports	**Imports**
Initial Value (DCU)	4,800	6,500
Demand elasticity	0.70	0.55
DCU: domestic currency units		

Following a 12% depreciation in the DCU, the trade balance will be *closest* to:

A. –1,674.
B. –1,648.
C. –1,726.

Answer = B

Impact on Trade Balance		
Total Trade = Exports + Imports = 4,800 + 6,500 = 11,300		
ω_x = share of exports = 4,800 ÷ 11,300 = 0.425	ω_m = share of imports = 6,500 ÷11,300 = 0.575	
ϵ_{ML} = Marshall-Lerner trade weighted elasticity	$\epsilon_{ML} = \omega_x \epsilon_x + \omega_m (\epsilon_m - 1)$ = (0.425 × 0.70) + 0.575 × (0.55 – 1) = **0.039**	
Change in Trade Balance using Marshall-Lerner trade weighted elasticity: ϵ_{ML} × Trade Balance × Depreciation = 0.039 × 11,300 × 0.12 = **52.5**		
New trade balance = 4,800 – 6,500 + 52.5 = **-1,647.5 = -1,648**		
Since the Marshall-Lerner condition >0, depreciation will reduce the trade deficit.		
Alternatively, the change in the trade balance can be calculated from % changes in imports and exports:		
Decrease in imports:	- (12% × (1 – 0.55) × 6,500) =	-351.0
Increase in exports:	12% × 0.70 × 4,800 =	403.2
Difference		**52.2**
Change in trade balance	4,800 – 6,500 + 52.2 =	**-1,648** (rounded)

CFA Level I
"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast
Section 4.2

"The Firm and Market Structures," Richard G. Fritz and Michele Gambera
Section 3.1.1
"Currency Exchange Rates," William A. Barker, Paul D. McNelis, and Jerry Nickelsburg
Section 5.1

45. An expansionary fiscal policy is *most likely* associated with:

A. an increase in capital gains tax rates.
B. crowding out of private investments.
C. an increase in government spending on social insurance and benefits.

Answer = B

Expansionary policy increases government borrowing, which may divert private sector investment from taking place (resulting in an effect known as crowding out). A rise in capital gain tax rates is a form of contractionary fiscal policy. Rises in government spending on social insurance and benefits is a form of automatic stabilizer and not due to discretionary fiscal expansion.

CFA Level I
"Monetary and Fiscal Policy," Andrew Clare and Stephen Thomas
Sections 3.1.1, 3.1.2, 3.1.3

46. The convergence of global accounting standards has advanced to a degree that the Securities & Exchange Commission in the United States now mandates that foreign private issuers who use IFRS may report under:

A. U.S. GAAP or under IFRS with a reconciliation to U.S. GAAP.
B. U.S. GAAP or under IFRS.
C. U.S. GAAP with voluntary supplemental reporting under IFRS.

Answer = B

Historically, the Securities & Exchange Commission required reconciliation for foreign private issuers that did not prepare financial statements in accordance with U.S. GAAP. However the reconciliation requirement was eliminated as of 2008 for companies that prepared their financial statements under IFRS.

CFA Level I
"Financial Reporting Standards," Elaine Henry, Jan Hendrik van Greuning and Thomas R. Robinson
Sections 4, 7

47. Which of the following statements is *most* accurate about the responsibilities of an auditor for a publicly traded firm in the United States? The auditor must:

A. ensure that the financial statements are free from error, fraud, or illegal acts.
B. state that the financial statements are prepared according to generally accepted accounting principles.
C. express an opinion about the effectiveness of the company's internal control systems.

Answer = C

For a publicly traded firm in the United States, the auditor must express an opinion as to whether the company's internal control system is in accordance with the Public Accounting Oversight Board, under the Sarbanes–Oxley Act. The opinion is given either in a final paragraph in the auditor's report or as a separate opinion.

CFA Level I

"Financial Statement Analysis: An Introduction," Elaine Henry and Thomas R. Robinson
Section 3.1.7

48. At the start of the year, a company acquired new equipment at a cost of €50,000, estimated to have a three-year life and a residual value of €5,000. If the company depreciates the asset using the double declining balance method, the depreciation expense that the company will report for the third year is *closest* to:

A. €3,705.
B. €555.
C. €3,328.

Answer = B

Under the double declining balance method, the depreciation rate is 2 × Straight line rate. The straight line rate is 33.3% (i.e., 1/3 years), so the double declining rate is 66.6%, or two-thirds depreciation rate per year. But the asset should not be depreciated below its assumed residual value in any year.

	Double Declining Balance Method of Depreciation		
Year	**Net Book Value at Start of Year**	**Depreciation**	**Net Book Value at End of Year**
1	€50,000	€33,333	€16,667
2	16,667	11,111	5,555
3	5,555*	555**	5,000
*	Alternative calculation for start of Year 3 net book value: €50,000 × (1 – 0.667) × (1 – 0.667) = €5,555.		
**	Depreciation cannot be 2/3 × €5,555 = €3,705 because that would reduce book value to less than the estimated €5,000.		

CFA Level I
"Understanding Income Statements," Elaine Henry and Thomas R. Robinson
Section 4.2.3

"Long-Lived Assets," Elaine Henry and Elizabeth A. Gordon
Section 3.1

49. In a period of rising prices, when compared with a company that uses weighted average cost for inventory, a company using FIFO will *most likely* report higher values for its:

A. debt-to-equity ratio.
B. return on sales.
C. inventory turnover.

Answer = B

In periods of rising prices, FIFO results in a higher inventory value and a lower cost of goods sold and thus a higher net income. The higher net income increases return on sales. The higher reported net income also increases retained earnings and thus results in a lower debt-to-equity ratio, not a higher one. The combination of higher inventory and lower cost of goods sold (CGS) decreases inventory turnover (CGS/Inventory).

CFA Level I
"Inventories," Michael A. Broihahn
Sections 3.2, 3.3, 3.5, 3.7

50. The following data is available on a company:

Metric	**($ millions)**
Total assets	145
Total revenues	282
Total expenses	241
Research & development expenses	12

Under a common-size analysis, the value used for research & development expenses is *closest* to:

A. 8.3%.
B. 4.2%.
C. 5.0%.

Answer = B

The appropriate base for a common-size income statement is revenue. As such, the value used for research & development expenses is $12 million÷$282 million x 100 = 4.25%.

CFA Level I
"Understanding Income Statements," Elaine Henry and Thomas R. Robinson
Section 7.1

51. Which of the following statements is *most* accurate?

A. Accrued revenue arises when a company receives cash prior to earning the revenue.
B. Accrued expenses arise when a company incurs expenses that have not yet been paid as of the end of the accounting period.
C. A valuation adjustment for an asset converts its historical cost to its depreciated value.

Answer = B

The statement about accrued expenses is correct. A valuation adjustment for an asset converts its historical cost to current market value; accrued revenue arises when revenue has been earned but not yet received.

CFA Level I
"Financial Reporting Mechanics," Thomas R. Robinson, Jan Hendrik van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn
Section 5.1

52. A company that prepares its financial statements in accordance with International Financial Reporting Standards (IFRS) uses the revaluation model to value land. At the end of the current year, the value of land, newly acquired this year, has increased and will be adjusted on the balance sheet. This land is the only asset in its asset class for revaluation purposes. Which of the following statements is *most* accurate? In the current period, the revaluation of the land will:

A. increase return on assets.
B. decrease the debt-to-equity ratio.
C. increase return on sales.

Answer = B

The increase in the value of the land bypasses the income statement and goes directly to a revaluation surplus account in equity, assuming no previous decreases in value in the asset class for revaluation purposes. Equity increases, thereby decreasing the debt-to-equity ratio.

CFA Level I
"Long-Lived Assets," Elaine Henry and Elizabeth A. Gordon
Section 4

53. A company purchased a warehouse for €35 million and incurred the following additional costs in getting the warehouse ready to use:

• €2.0 million for repairs to the building's roof and windows
• €0.5 million to modify the interior layout to meet their needs (moving walls and doors, inserting and removing partitions, etc.)
• €0.1 million on an orientation and training session for employees to familiarize them with the facility

The cost to be capitalized to the building account (in millions) is *closest* to:

A. €37.6.
B. €37.5.
C. €37.0.

Answer = B

The capitalized cost of the building would include the other costs that are directly attributable to the building and are involved in extending its life or getting it ready to use:

	€ Millions
Initial cost	35.00
Repairs to roof and windows	2.00
Modifications to interiors	0.50
Total cost	37.5

CFA Level I
"Long-Lived Assets," Elaine Henry and Elizabeth A. Gordon
Section 2.1

54. Notes to financial statements *most likely* include:

A. a discussion of significant trends, events and uncertainties that affect the operating results.
B. supplementary information about accounting policies, methods and estimates.
C. an auditor's opinion as to the fair presentation of the financial statements.

Answer = B

The notes disclose information about the accounting policies, methods, and estimates used to prepare the financial statements.

CFA Level I
"Financial Statement Analysis: An Introduction," Elaine Henry and Thomas R. Robinson
Section 3.1.5

55. At the beginning of the year, a company purchased a fixed asset for $500,000 with no expected residual value. The company depreciates similar assets on a straight line basis over 10 years, whereas the tax authorities allow declining balance depreciation at the rate of 15% per year. In both cases, the company takes a full year's depreciation in the first year and the tax rate is 40%. Which of the following statements concerning this asset at the end of the year is *most* accurate?

A. The temporary difference is $25,000.
B. The tax base is $500,000.
C. The deferred tax asset is $10,000.

Answer = A

The temporary difference is the difference between the net book value (NBV) of the asset for accounting purposes and the NBV for taxes

NBV accounting	[500,000 – (500,000/10)]	$450,000
NBV taxes	[500,000 – 0.15 × (500,000)]	$425,000
Temporary difference		$25,000

CFA Level I
“Long-Lived Assets,” Elaine Henry and Elizabeth A. Gordon
Section 3.1

“Income Taxes,” Elbie Antonites and Michael A. Broihahn
Sections 2.2, 4.1, 4.3

56. The following data is available on a company for the current year:

Metric	**(£’000)**
Comprehensive income	246,000
Dividends paid	60,000
Ending retained earnings	821,000
Opening retained earnings	580,000

The company will *most likely* report other comprehensive income (OCI) (in £'000) as a:

A. gain of 301,000.
B. gain of 186,000.
C. loss of 55,000.

Answer = C

Metric	**(£'000)**
Ending retained earnings	821,000
Less: opening retained earnings	(580,000)
Add back: dividends paid	60,000
Net income	301,000
Comprehensive income	246,000
OCI = Comprehensive income – net income	**55,000 LOSS**

CFA Level I
"Understanding Income Statements," Elaine Henry and Thomas R. Robinson
Section 8

57. A company that prepares its financial statements in accordance with International Financial Reporting Standards (IFRS) is attempting to produce lighter and longer-lasting batteries for portable electronic devices. The *most* appropriate accounting treatment for the related costs incurred in this project is to:

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

Answer = B

Under IFRS, research and development costs are expensed until certain criteria are met, including that technical feasibility has been established and the company intends to use the developed product.

CFA Level I
"Long-Lived Assets," Elaine Henry and Elizabeth A. Gordon
Section 2.2.2

58. A company incurs the following costs related to its inventory during the year:

Cost	**¥ Millions**
Purchase price	100,000
Trade discounts	5,000
Import duties	20,000
Shipping of raw materials to manufacturing facility	10,000
Manufacturing conversion costs	50,000
Abnormal costs as a result of waste material	8,000
Storage cost prior to shipping to customers	2,000

The amount charged to inventory cost (in millions) is *closest* to:

A. ¥177,000.
B. ¥175,000.
C. ¥185,000.

Answer = B

The costs to include in inventories are all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition. It does not include abnormal waste costs or storage of finished product.

Cost	**¥ Millions**
Purchase price	100,000
Minus trade discounts	–5,000
Import duties	20,000
Shipping of raw materials to manufacturing facility	10,000
Manufacturing conversion costs	50,000
Total inventory costs	175,000

CFA Level I
"Inventories," Michael A. Broihahn
Section 2

59. An analyst has compiled the following information on a company:

		£ thousands
Beginning of the year values		
	Share capital	2,000
	Retained earnings	8,850
During the year		
	Revenues	12,000
	Total expenses	10,150
	Proceeds from shares issued	500
End of year values		
	Total current assets	9,200
	Total non-current assets	12,750
	Investments	350
	Total liabilities	9,400

The amount of dividends declared (£ thousands) during the year is *closest* to:

A. 150.
B. 650.
C. 300.

Answer = B

Total assets = Current assets + Non-current assets = 9,200 + 12,750	Total assets = £21,950 thousand
Assets = Liabilities + Equity 21,950 = 9,400 + Equity	Equity = £12,550 thousand
Equity = Share capital + Retained earnings 12,550 = (2,000 +500) + Retained earnings	Retained earnings = £10,050 thousand
Retained earnings = Beginning retained earnings + Net income – Dividends 10,050 = 8,850 + (12,000 – 10,150) – Dividends	Dividends = £650 thousand

CFA Level I
"Financial Reporting Mechanics," Thomas R. Robinson, Jan Hendrik van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn
Sections 3.2, 4.2

60. Interim reports *most likely*:

A. are issued semi-annually or quarterly.
B. include a full set of financial statements and notes.
C. are audited.

Answer = A

Interim reports are provided semi-annually or quarterly, depending on applicable regulatory requirements.

CFA Level I
"Financial Statement Analysis: An Introduction," Elaine Henry and Thomas R. Robinson
Section 3.2

61. At the start of a month, a retailer paid $5,000 in cash for candies. He sold $2,000 worth of candies for $3,000 during the month. The *most likely* effect of these transactions on the retailer's accounting equation for the month is that assets will:

A. be unchanged.
B. decrease by $2,000.
C. increase by $1,000.

Answer = C

Buying $5,000 of candies will decrease cash by $5,000 and increase inventory by $5,000. Selling $2,000 of candies for $3,000 will decrease inventory by $2,000 and increase either cash (if cash is collected in the same accounting period) or accounts receivable (if sold on credit) by $3,000. The combined effect is an increase of $1,000 in assets.

CFA Level I
"Financial Reporting Mechanics," Thomas R. Robinson, Jan Hendrik van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn
Section 3.2

62. The use of estimates in financial reporting is *best* described as:

A. acceptable despite the risk of manipulation by management.
B. a factor that reduces the understandability of financial statements.
C. avoidable through sophisticated accounting and auditing techniques.

Answer = A

The use of estimates creates limitations in the accounting model because estimates provide a vehicle for manipulation by unscrupulous management. However, estimates are considered necessary to the faithful representation of the economic performance and position of a company.

CFA Level I
"Financial Reporting Mechanics," Thomas R. Robinson, Jan Hendrik van Greuning, Karen O'Connor Rubsam, Elaine Henry and Michael A. Broihahn
Section 7.1

63. Which of the following statements is *most* accurate with respect to the jurisdiction underlying financial reporting?

A. The requirement to prepare financial reports in accordance with specified accounting standards is the responsibility of standard-setting bodies.
B. Standard-setting bodies have authority because they are recognized by regulatory authorities.
C. Regulatory authorities are typically private sector, self-regulated organizations.

Answer = B

Without the recognition of the standards by the regulatory authorities, such as the US SEC, the private sector standard-setting bodies, such as US Financial Accounting Standards Board, would have no authority.

CFA Level I
"Financial Reporting Standards," Elaine Henry, Jan Hendrik van Greuning, and Thomas R. Robinson
Section 3

64. The following information is available on a company for the current year.

Net income	$1,000,000
Average number of common shares outstanding	100,000
Details of convertible securities outstanding:	
Convertible preferred shares outstanding	2,000
o Dividend/share	$10
o Each preferred share is convertible into five shares of common stock	
Convertible bonds, $100 face value per bond	$80,000
o 8% coupon	
o Each bond is convertible into 25 shares of common stock	
Corporate tax rate	40%

The company's diluted EPS is *closest* to:

A. $7.72.
B. $7.57.
C. $7.69.

Answer = A

Because both the preferred shares and the bonds are dilutive, they should both be converted to calculate the diluted EPS. Diluted EPS is the lowest possible value.

	Basic EPS	Diluted EPS: Bond Converted	Diluted EPS: Preferred Converted	Diluted EPS: Both Converted
Net income	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Preferred dividends	–$20,000	–$20,000	0	0
After-tax cost of interest 8% × $80,000 × (1 – 0.40)		$3,840		$3,840
Numerator	$980,000	$983,840	$1,000,000	$1,003,840
Average common shares outstanding	100,000	100,000	100,000	100,000
Preferred converted			10,000	10,000
Bond converted		20,000		20,000
Denominator	100,000	120,000	110,000	130,000
EPS	$9.80	$8.20	$9.09	$7.72

CFA Level I
"Understanding Income Statements," Elaine Henry and Thomas R. Robinson
Sections 6.2, 6.3

65. Which of the following statements *best* describes a trial balance? A trial balance is a document or computer file that:

A. shows all business transactions by account.
B. lists all account balances at a particular point in time.
C. contains all business transactions recorded in the order in which they occur.

Answer = B

A trial balance is a document that lists account balances at a particular point in time.

CFA Level I
"Financial Reporting Mechanics," Thomas R. Robinson, Jan Hendrik van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn
Section 6

66. The following information is available for a manufacturing company:

	$ Millions
Cost of ending inventory computed using FIFO	4.3
Net realizable value	4.1
Current replacement cost	3.8

If the company is using International Financial Reporting Standards (IFRS) instead of US GAAP, its cost of goods sold (in millions) is *most likely*:

A. $0.3 lower.
B. the same.

C. $0.3 higher.

Answer = A

Under IFRS, the inventory would be written down to its net realizable value ($4.1 million), whereas under US GAAP, market value is defined as current replacement cost and thus would be written down to its current replacement cost ($3.8 million). The smaller write-down under IFRS will reduce the amount charged to the cost of goods sold compared with US GAAP and result in a lower cost of goods sold of $0.3 million.

CFA Level I
"Inventories," Michael A. Broihahn
Section 4

67. The *least likely* reason that a security analyst needs to understand the accounting process is to:

A. prevent earnings manipulation by management.
B. make adjustments to reflect items not reported in the financial statements.
C. aid in the assessment of management's judgment in accruals and valuations.

Answer = A

Understanding the accounting process may assist an analyst in identifying earnings manipulation, but it will not prevent the manipulation of earnings by management. It is important for an analyst to understand the accounting process so that they can make adjustments for items not reported and aid in the assessment of management's judgment of accruals and valuations.

CFA Level I
"Financial Reporting Mechanics," Thomas R. Robinson, Jan Hendrik van Greuning, Karen O'Connor Rubsam, Elaine Henry, and Michael A. Broihahn
Section 7

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

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

Answer = C

The annual report is not a requirement of the SEC.

CFA Level I
"Financial Reporting Standards," Elaine Henry, Jan Hendrik van Greuning, and Thomas R. Robinson
Section 3.2.2

69. According to the International Financial Reporting Standards (IFRS), which of the following conditions *should* be satisfied to report revenue from the sale of goods on the income statement?

A. Goods have been delivered to the customer.
B. Costs can be reliably measured.
C. Payment has been received.

Answer = B

The IFRS conditions that should be met to recognize revenue from the sale of goods include that the costs incurred can be reliably measured, that the economic benefits will flow to the entity, and that the significant risks and rewards of ownership have been transferred, which is normally when the goods have been delivered but not always. The actual receipt of any payment is not a condition.

CFA Level I
"Understanding Income Statements," Elaine Henry and Thomas R. Robinson
Section 3.1

70. A company's $100 par value preferred stock with a dividend rate of 9.5% per year is currently priced at $103.26 per share. The company's earnings are expected to grow at an annual rate of 5% for the foreseeable future. The cost of the company's preferred stock is *closest* to:

A. 9.2%.
B. 9.5%.
C. 9.7%.

Answer = A

$r_p = D_p/P_p$ (or Dividend/Price) = ($100 × 0.095)/$103.26 = 9.2%.

CFA Level I
"Cost of Capital," Yves Courtois, Gene C. Lai, and Pamela Peterson Drake
Section 3.2

"Equity Valuation: Concepts and Basic Tools," John J. Nagorniak and Stephen E. Wilcox
Section 4.1

71.

Income Statement	**Millions ($)**
Revenues	9.8
Variable operating costs	7.2
Fixed operating costs	1.5
Operating income	1.1
Interest	0.6
Taxable income	0.5
Tax	0.2
Net income	0.3

The degree of operating leverage (DOL) is *closest* to:

A. 1.1.
B. 2.4.
C. 1.7.

Answer = B

DOL = Revenues – Variable operating costs/Revenues – Variable operating costs – Fixed operating costs

$$= \frac{9.8 - 7.2}{9.8 - 7.2 - 1.5}$$

$$= 2.36.$$

CFA Level I
"Measures of Leverage," Pamela Peterson Drake, Raj Aggarwal, Cynthia Harrington, and Adam Kobor
Section 3.3

72. A 20-year $1,000 fixed-rate non-callable bond with 8% annual coupons currently sells for $1,105.94. Assuming a 30% marginal tax rate and an additional risk premium for equity relative to debt of 5%, the cost of equity using the bond-yield-plus-risk-premium approach is *closest* to:

A. 9.9%
B. 13.0%
C. 12.0%

Answer = C

First, determine the yield to maturity, which is the discount rate that sets the bond price to $1,105.94 and is equal to 7%. This calculation can be done with a financial calculator:

FV = –$1,000, PV = $1,105.94, N = 20, PMT = –$80, solve for i, which will equal 7%.

The bond-yield-plus-risk-premium approach is calculated by adding a risk premium to the cost of debt (i.e., the yield to maturity for the debt), making the cost of equity 12.00% (= 7% +5%).

CFA Level I
"Cost of Capital," Yves Courtois, Gene C. Lai, and Pamela Peterson Drake
Sections 3.1.1, 3.3.3

73. Which of the following is *most likely* considered an example of matrix pricing when determining the cost of debt?

A. Debt-rating approach only.
B. Yield-to-maturity approach only.
C. Both the yield-to-maturity and the debt-rating approaches.

Answer = A

The debt-rating approach is an example of matrix pricing.

CFA Level I
"Cost of Capital," Yves Courtois, Gene C. Lai, and Pamela Peterson Drake
Section 3.1.1, 3.1.2

74. A company's data are provided in the following table:

Cost of debt	10%
Cost of equity	16%
Debt-to-equity ratio (D/E)	50%
Tax rate	30%

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

A. 13.0%.
B. 11.5%.
C. 14.0%.

Answer = A

Convert the D/E to determine the weights of debt and equity as follows:

$$w_d = \frac{D/E}{1+D/E} = \frac{50\%}{1+50\%} = 33.3\%$$
$$w_e = 1 - w_d = 66.7\%$$

$$\text{WACC} = w_d r_d (1-t) + w_p r_p + w_e r_e$$

$$\text{WACC} = 33.3\% \times 10\% \times (1-30\%) + 66.7\% \times 16\% = 13.0\%.$$

CFA Level I
"Cost of Capital," Yves Courtois, Gene C. Lai, and Pamela Peterson Drake
Sections 2, 2.1, 2.2

75. Which action is *most likely* considered a secondary source of liquidity?

A. Renegotiating current debt contracts to lower interest payments
B. Increasing the efficiency of cash flow management
C. Increasing the availability of bank lines of credit

Answer = A

Renegotiating debt contracts is a secondary source of liquidity because it may affect the company's operating and/or financial positions.

CFA Level I
"Working Capital Management," Edgar A. Norton, Jr., Kenneth L. Parkinson, and Pamela Peterson Drake
Sections 2.1.1, 2.1.2

76. The following information is available for a firm:

Revenue	£800,000
Variable cost	400,000
Fixed cost	200,000
Operating income	200,000
Interest	60,000
Net income	140,000

The firm's degree of total leverage (DTL) is *closest* to:

A. 1.43.
B. 2.86.
C. 2.00.

Answer = B

DTL = Revenue – Variable cost/Net income = £800,000 – £400,000/£140,000 = 2.86.

CFA Level I
"Measures of Leverage," Pamela Peterson Drake, Raj Aggarwal, Cynthia Harrington, and Adam Kobor
Section 3.5

77. Business risk *most likely* incorporates operating risk and:

A. interest rate risk.

B. sales risk.
C. financial risk.

Answer = B

Business risk is the combination of sales risk and operating risk.

CFA Level I
"Measures of Leverage," Pamela Peterson Drake, Raj Aggarwal, Cynthia Harrington, and Adam Kobor
Sections 3.1, 3.2

78. A trader who owns shares of a stock currently trading at $100 per share places a "GTC, stop $90, limit $85 sell" order (GTC means good till cancelled). Assuming the specified stop condition is satisfied and the order becomes executed, which of the following statements is *most* accurate?

A. The trader faces a maximum realized loss of $15.
B. The order becomes a market order when the price falls below $85 and remains valid for execution.
C. The order will be executed at either $90 or $85.

Answer = A

The order becomes valid when the price falls to, or below, $90. The "limit $85 sell" indicates that the trader is unwilling to sell below $85. Thus, the trader faces a maximum loss of $15 ($100 – $85).

CFA Level I
"Market Organization and Structure," Larry Harris
Section 6.2

79. A Japanese exporter will sell U.S. dollars for Japanese Yen in the quote-driven currency markets. Which of the following statements *best* describes her currency exchange transactions?

A. Her counterparties are dealers.
B. This currency exchange transaction takes place in organized exchanges.
C. She will pay commissions for exchange services.

Answer = A

In the quote-driven currency markets, dealers are counterparties to currency exchange transactions.

CFA Level I
"Market Organization and Structure," Larry Harris
Section 8.2

80. A market index contains the following two securities:

Stock	Shares in Index	Start-of-Period Price ($)	End-of-Period Price ($)	Dividend per Share ($)
A	600	40	37	2.00
B	500	50	52	1.50

The total return on an equal-weighted basis is *closest* to:

A. –1.75%.
B. 2.78%.
C. 2.25%.

Answer = C

Stock	Shares in Index	Start-of-Period Price ($)	End-of-Period Price ($)	Dividend per Share ($)	Price Return (%)	Total Return (%)
	(1)	**(2)**	**(3)**	**(4)**	**= (3)/(2) – 1**	**= [(3) + (4)]/(2) – 1**
A	600	40	37	2	–7.50%	–2.50%
B	500	50	52	1.5	4.00%	7.00%
Total return = [(-2.5 + 7)/2]						**2.25%**

CFA Level I
"Security Market Indices," Paul D. Kaplan and Dorothy C. Kelly
Section 3.2

81. The advantages to an investor owning convertible preference shares of a company *most likely* include:

A. an opportunity to receive additional dividends if the company's profits exceed a pre-specified level.
B. preference dividends that are fixed contractual obligations of the company.
C. less price volatility than the underlying common shares.

Answer = C

Convertible preference shares tend to exhibit less price volatility than the underlying common shares because the dividend payments are known and more stable.

CFA Level I
"Overview of Equity Securities," Ryan C. Fuhrmann and Asjeet S. Lamba
Section 3.2

82. The index weighting that results in portfolio weights shifting away from securities that have increased in relative value toward securities that have fallen in relative value whenever the portfolio is rebalanced is *most* accurately described as:

A. float-adjusted market-capitalization weighting.
B. equal weighting.
C. fundamental weighting.

Answer = C

Fundamentally weighted indices generally will have a contrarian "effect" in that the portfolio weights will shift away from securities that have increased in relative value and toward securities that have fallen in relative value whenever the portfolio is rebalanced.

CFA Level I
"Security Market Indices," Paul D. Kaplan and Dorothy C. Kelly
Section 3.2.4.

83. An industry experiencing slow growth, high prices, and volumes insufficient to achieve economies of scale is *most likely* in the:

A. shakeout stage.
B. mature stage.
C. embryonic stage.

Answer = C

An embryonic industry is one that is just beginning to develop and is characterized by slow growth, high prices, volumes not yet sufficient to achieve meaningful economies of scale, developing distribution channels, and low brand loyalty because there is low customer awareness of the industry's product.

CFA Level I
"Introduction to Industry and Company Analysis," Patrick W. Dorsey, Anthony M. Fiore, and Ian Rossa O'Reilly
Section 5.1.5.1

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

A. Dealers
B. Brokers
C. Exchanges

Answer = A

The service that dealers provide is liquidity. Liquidity is the ability to buy or sell with low transaction costs when investors want to trade. By allowing their clients to trade when they want to trade, dealers provide liquidity to them.

CFA Level I
"Market Organization and Structure," Larry Harris
Sections 4.1, 4.2

85. The behavioral bias in which investors tend to avoid realizing losses but rather seek to realize gains is *best* described as:

A. the gambler's fallacy.
B. the disposition effect.
C. mental accounting.

Answer = B

Behavioral biases in which investors tend to avoid realizing losses but, rather, seek to realize gains is the disposition effect.

CFA Level I
"Market Efficiency," by W. Sean Cleary, Howard J. Atkinson, and Pamela Peterson Drake
Section 5.3

86. An investor buys a stock on margin and holds the position for one year.

Shares purchased	700
Purchase price	$22/share
Call money rate	4%
Dividend	$0.60/share
Leverage ratio	1.6
Total return on the investment	12%

Assuming that the interest on the loan and the dividend are both paid at the end of the year, the price at which the investor sold the stock is *closest* to:

A. $23.05.
B. $23.38.
C. $23.98.

Answer = B

Total purchase value = Purchase price × Shares purchased	$22 × 700	$15,400
Minus initial equity = Total purchase value/Leverage ratio	$15,400/1.6	9,625
Amount borrowed = Total purchase value – Initial equity	$15,400 – $9,625	$5,775
Margin interest paid = Call money rate × Amount borrowed	4% × $5,775	$231
Dividend income = Dividend per share × Shares purchased	$0.60 × 700	$420
Total return on the initial equity	12% × $9,625	$1,155
Gain from price appreciation = Total return – Dividend + Margin interest	$1,155 – $420 + $231	$966
Price at which investor sold the stock = Gain from price appreciation per share + Purchase price	($966/700) + $22	$23.38

CFA Level I
"Market Organization and Structure," Larry Harris
Section 5.2

87. Which of the following statements concerning the objectives of market regulation is *least* accurate? Regulators:

A. set standards to ensure that all agents acting in the market are skilled.
B. ensure systems are in place to prevent fraud.
C. promote fair and orderly markets.

Answer = A

Regulators help solve agency problems by setting minimum standards of competence, not skill, for agents and by defining and enforcing minimum standards of practice.

CFA Level I
"Market Organization and Structure," Larry Harris
Section 10

88. An observation that stocks with above average price-to-earnings ratios have consistently underperformed those with below average price-to-earnings ratios *least likely* contradicts which form of market efficiency?

A. Weak form
B. Semi-strong form
C. Strong form

Answer = A

The observation that stocks with high above average price-to-earnings ratios have consistently underperformed those with below average price-to-earnings ratios is a cross-sectional anomaly. It is a contradiction to the semi-strong form of market efficiency and strong form market efficiency because all the information used to categorize stocks by their price-to-earnings ratios is publicly available. It is not a contradiction to weak form market efficiency.

CFA Level I
"Market Efficiency," W. Sean Cleary, Howard J. Atkinson, and Pamela Peterson Drake
Section 4.2

89. Which of the following statements concerning financial regulatory bodies is *least* accurate? Financial regulatory bodies:

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

Answer = C

Financial regulators impose minimum levels of capital that apply across the board to all regulated firms—not the optimum level, which is firm specific.

CFA Level I

"Market Organization and Structure," Larry Harris
Section 10

90. A long-term bond investor with an investment horizon of 8 years invests in option-free, fixed-rate bonds with a Macaulay duration of 10.5. The investor *most likely* currently has a:

A. positive duration gap and is currently exposed to the risk of lower interest rates.
B. negative duration gap and is currently exposed to the risk of higher interest rates.
C. positive duration gap and is currently exposed to the risk of higher interest rates.

Answer = C

The duration gap is the bond's Macaulay duration minus the investment horizon, which is positive in this case. A positive duration gap implies that the investor is currently exposed to the risk of higher interest rates.

CFA Level I
"Understanding Fixed-Income Risk and Return", James F. Adams and Donald J. Smith
Section 4.2

91. In a repurchase agreement, the repo margin will be lower the:

A. higher the quality of the collateral.
B. lower the demand for the collateral.
C. higher the supply of the collateral.

Answer = A

The higher the quality of the collateral, the lower the difference between the market value of the security used as collateral and the value of the loan—that is, the repo margin.

CFA Level 1
"Fixed-Income Markets: Issuance, Trading, and Funding," Moorad Choudhry, Steven V. Mann, and Lavone F. Whitmer
Section 7.3

92. The type of residential mortgage *least likely* to contain a "balloon" payment is a(n):

A. fully amortizing mortgage.
B. interest-only mortgage.
C. partially amortizing mortgage.

Answer = A

A fully amortizing mortgage is least likely to contain a balloon payment because the sum of all the scheduled principal repayments during the mortgage's life is such that when the last mortgage payment is made the loan is paid in full.

CFA Level I
"Introduction to Asset-Backed Securities", Frank J. Fabozzi
Section 4.3

93. A two-year spot rate of 5% is *most likely* the:

A. yield to maturity on a zero-coupon bond maturing at the end of Year 2.
B. yield to maturity on a coupon-paying bond maturing at the end of Year 2.
C. coupon rate in Year 2 on a coupon-paying bond maturing at the end of Year 4.

Answer = A

A spot rate is defined as the yield to maturity on a zero-coupon bond maturing at the date of that cash flow.

CFA Level I
"Introduction to Fixed-Income Valuation," James F. Adams and Donald J. Smith
Section 2.4

94. Given two otherwise identical bonds, when interest rates rise, the price of Bond A declines more than the price of Bond B. Compared with Bond B, Bond A *most likely*:

A. has a shorter maturity.
B. is callable.
C. has a lower coupon.

Answer = C

The lower the coupon rate, the more sensitive the bond's price is to changes in interest rates.

CFA Level 1
"Introduction to Fixed-Income Valuation," James F. Adams and Donald J. Smith
Section 2.3

95. Credit spreads are *most likely* to narrow during:

A. economic contractions.
B. economic expansions.
C. a period of flight to quality.

Answer = B

Credit spreads narrow during economic expansions and widen during economic contractions. During an economic expansion, corporate revenues and cash flows rise, making it easier for corporations to service their debt, and investors purchase corporates instead of Treasuries, thus causing spreads to narrow.

CFA Level I
"Fundamentals of Credit Analysis," Christopher L. Gootkind
Section 6

96. If a bank wants the ability to retire debt prior to maturity in order to take advantage of lower borrowing rates, it *most likely* issues a:

A. callable bond.
B. putable bond.
C. convertible bond.

Answer = A

Callable bonds give issuers the ability to retire debt prior to maturity. The most compelling reason for them to do so is to take advantage of lower borrowing rates.

CFA Level 1
"Fixed-Income Markets: Issuance, Trading, and Funding," Moorad Choudhry, Steven V. Mann, and Lavone F. Whitmer
Section 6.3.5

97. Which of the following bonds is *most likely* to trade at a lower price relative to an otherwise identical option-free bond?

A. Convertible bond
B. Callable bond
C. Putable bond

Answer = B

A callable bond benefits the issuer because it gives the issuer the right to redeem all (or part) of the bonds before the maturity date. Thus, the price of a callable bond will typically be lower than the price of an otherwise identical non-callable bond.

CFA Level I
"Fixed-Income Securities: Defining Elements," Moorad Choudhry and Stephen E. Wilcox
Section 5.1

98. Which of the following is *least likely* a short-term funding method available to banks?

A. Central bank funds
B. Syndicated loans
C. Negotiable certificate of deposits

Answer = B

A syndicated loan is a loan from a group of lenders, called the "syndicate," to a single borrower. Syndicated loans are primarily originated by banks, and the loans are extended to companies but also to governments and government-related entities.

CFA Level 1
"Fixed-Income Markets: Issuance, Trading, and Funding," Moorad Choudhry, Steven V. Mann, and Lavone F. Whitmer
Section 7

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

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

Answer = B

The right to call an issue is a type of embedded option granted to issuers, not bondholders. The other two rights are embedded options granted to bondholders.

CFA Level 1
"Fixed-Income Securities: Defining Elements," Moorad Choudhry and Stephen E. Wilcox
Section 5.1

100. The option-free bonds issued by ALS Corp. are currently priced at 108.50. Based on a portfolio manager's valuation model, a 1bp increase in interest rates will result in the bond price falling to 108.40, whereas a 1bp decrease in interest rates will result in the bond price rising to 108.59. The price value of a basis point (PVBP) for the bonds is *closest* to:

A. 0.190.
B. 0.095.
C. 0.088.

Answer = B

The bond's PVBP is computed using $\text{PVBP} = \frac{(PV_-) - (PV_+)}{2}$.

so, $\frac{108.59 - 108.40}{2} = 0.095$.

CFA Level 1
"Understanding Fixed-Income Risk and Return," James F. Adams and Donald J. Smith
Section 3.5

101. Holding all other characteristics the same, the bond exposed to the greatest level of reinvestment risk is *most likely* the one selling at:

A. a premium.
B. a discount.
C. par.

Answer = A

A bond selling at a premium has a higher coupon rate and, all else being equal, bonds with higher coupon rates face higher reinvestment risk. The reason is that the higher the coupon rate, the more

dependent the bond's total dollar return will be on the reinvestment of the coupon payments in order to produce the yield to maturity at the time of purchase.

CFA Level I
"Understanding Fixed-Income Risk and Return," James F. Adams and Donald J. Smith
Section 2

102. Convenience yield is *best* described as a nonmonetary benefit of holding a(n):

A. forward contract.
B. option contract.
C. asset.

Answer = C

Convenience yield represents the nonmonetary advantage of holding the asset.

CFA Level I
"Basics of Derivative Pricing and Valuation," Don M. Chance
Section 2.2.5

103. For a forward contract with a value of zero, a situation where the spot price is above the forward price is *best* explained by high:

A. convenience yield.
B. storage costs.
C. interest rates.

Answer = A

If the convenience yield is high, holding the underlying confers large benefits, thus the spot price can exceed the forward price for a forward contract with a value of zero. Based on the formula $V_t(T) = S_t - (\gamma - \theta)(1+r)^t - F_0(T)(1+r)^{-(T-t)}$ and an initial value $V_t(0)$ of zero, large benefits γ explain why the spot price can exceed the forward price.

CFA Level 1
“Basics of Derivative Pricing and Valuation,” Don M. Chance, CFA
Section 2.2.5

104. An investor purchases 100 shares of common stock at €50 each and simultaneously sells call options on 100 shares of the stock with a strike price of €55 at a premium of €1 per option. At the expiration date of the options, the share price is €58. The investor's profit is *closest* to:

A. €900.
B. €600.
C. €400.

Answer = B

Because the share price (S_T) is greater than the strike price (X), the investor collects the premium plus the difference between the strike price and purchase price: $X - S_0 + c_0$. In this case, 100 × (€55 – €50 + €1) = €600.

CFA Level I
"Risk Management Applications of Option Strategies," Don M. Chance
Section 2.2.1

105. According to put-call parity, if a fiduciary call expires in the money, the payoff is *most likely* equal to the:

A. market value of the asset.
B. face value of the risk-free bond.
C. difference between the market value of the asset and the face value of the risk-free bond.

Answer = A

A fiduciary call, defined as a long position in a call and in a risk-free bond, generates a payoff that is equal to the market value of the asset if it expires in the money.

CFA Level I
"Basics of Derivative Pricing and Valuation," Don M. Chance
Section 4.1.9

106. A high convenience yield is *most likely* associated with holding:

A. commodities.
B. bonds.
C. equities.

Answer = A

A high convenience yield is primarily associated with commodities and generally exists as a result of difficulty in shorting the commodity or unusually tight supplies.

CFA Level I
"Basics of Derivative Pricing and Valuation," Don M. Chance
Section 2.2.5

107. Which of the following statements *best* describes changes in the value of a long forward position during its life?

A. As interest rates go down, the value of the position goes up.
B. As the time to maturity goes down, the value of the position goes up.
C. As the price of the underlying goes up, the value of the position goes up.

Answer = C

Given the formula for the value of a forward contract:

$$V_t(T) = S_t - F_0(T)(1+r)^{-(T-t)}$$

it follows that the value of the contract goes up as the price of the underlying goes up.

CFA Level 1
"Basics of Derivative Pricing and Valuation," Don M. Chance, CFA
Section 3.1.3

108. The following information is available about a hedge fund:

Initial fund assets	$100 million
Fund assets at the end of the period (before fees)	$110 million
Management fee based on assets under management	2%
Incentive fee based on the return	20%
Soft hurdle rate	8%

No deposits to the fund or withdrawals from the fund occurred during the year. Management fees are calculated using end-of-period valuation. Management fees and incentive fees are calculated independently. The net-of-fees return of the investor is *closest* to:

A. 5.8%.
B. 7.4%.
C. 7.8%.

Answer = A

The soft hurdle rate is surpassed, because the return of the fund is 10%. For that reason, the full fee, based on the full performance, is due.

Management fee: 2% of $110 million = $2.2 million.
Incentive fee: 20% of $10 million = $2 million.
Total fees: $4.2 million.

Therefore, the fund assets at the end of the period after fees are $105.8 million. The return for the investor is 5.8%.

CFA Level I
"Introduction to Alternative Investments," by Terri Duhon, George Spentzos, and Scott D. Stewart
Section 3.3

109. The real estate index *most likely* to suffer from sample selection bias is a(n):

A. REIT index.
B. repeat sales index.
C. appraisal index.

Answer = B

Only properties that sell in each period and are included in the index and vary over time which may not be representative of the whole market.

CFA Level I
"Introduction to Alternative Investments," by Terri Duhon, George Spentzos, and Scott D. Stewart
Section 5.3

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

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

Answer = C

Real estate investment trusts (REITs) provide investors with indirect equity real estate exposure. Real estate investment partnerships are a form of direct real estate equity investment. Commercial mortgage-backed securities (CMBSs) provide investors with indirect debt investment opportunities in real estate.

CFA Level I
"Introduction to Alternative Investments," Terri Duhon, George Spentzos, and Scott D. Stewart
Sections 5.1, 5.2

111. Which attribute would a private equity firm *most likely* desire when deciding if a company is particularly attractive as a leveraged buyout target?

A. Efficient management
B. Market value exceeds intrinsic value
C. Sustainable cash flow

Answer = C

Private equity firms look for companies that have strong cash flows and a significant amount of physical assets. These physical assets can be used as security and borrowed against.

CFA Level I
"Introduction to Alternative Investments," Terri Duhon, George Spentzos, and Scott D. Stewart
Section 4.2.1.2

112. The stock of GBK Corporation has a beta of 0.65. If the risk-free rate of return is 3% and the expected market return is 9%, the expected return for GBK is *closest* to:

A. 10.8%.
B. 3.9%.
C. 6.9%.

Answer = C

$$E(R_{\text{GBK}}) = R_f + \beta_{\text{GBK}} \times [E(R_{\text{Mkt}}) - R_f] =$$

$$0.03 + 0.65 \times (0.09 - 0.03) = 0.069 \text{ or } 6.9\ \% .$$

CFA Level I

"Portfolio Risk and Return: Part II," Vijay Singal
Section 3.2.6

113. The point of tangency between the capital allocation line (CAL) and the efficient frontier of risky assets *most likely* identifies the:

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

Answer = B

The optimal risky portfolio lies at the point of tangency between the capital allocation line and the efficient frontier of risky assets.

CFA Level I
"Portfolio Risk and Return: Part I," Vijay Singal
Section 5.4

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

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

Answer = A

The Treynor ratio measures the return premium of a portfolio versus the risk-free asset relative to the portfolio's beta, which is a measure of systematic risk.

CFA Level I
"Portfolio Risk and Return: Part II," Vijay Singal
Section 4.3.2

115. A portfolio manager generated a rate of return of 15.5% on a portfolio with beta of 1.2. If the risk-free rate of return is 2.5% and the market return is 11.8%, Jensen's alpha for the portfolio is *closest* to:

A. 1.84%.
B. 3.70%.
C. 4.34%.

Answer = A

Jensen's alpha = $Rp - [Rf + \beta p(Rm - Rf)]$

$= 0.155 - [0.025 + 1.2 \times (0.118 - 0.025)] = 0.0184.$

CFA Level I
"Portfolio Risk and Return: Part II," Vijay Singal
Section 4.3.2

116. A return-generating model that provides an estimate of the expected return of a security based on such factors as earnings growth and cash flow generation is *best* described as a:

A. market factor model.
B. macroeconomic factor model.
C. fundamental factor model.

Answer = C

A return-generating model based on such factors as earnings growth and cash flow generation is a fundamental factor model.

CFA Level I
"Portfolio Risk and Return: Part II," Vijay Singal
Section 3.2.1

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

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

Answer = B

$Cov(A,B) = \rho_{AB}\sigma_A\sigma_B = 0.75 \times 0.4 \times 0.3 = 0.09$.

CFA Level I
"Portfolio Risk and Return: Part I," Vijay Singal
Section 2.3.3

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

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

Answer = C

Performance measurement is a part of the feedback step of the portfolio management process. The execution step includes asset allocation, security analysis, and portfolio construction.

CFA Level I
"Portfolio Management: An Overview," Robert M. Conroy and Alistair Byrne
Section 4

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

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

Answer = A

The standard deviation of a two-asset portfolio is given by the square root of the portfolio's variance:

$$\sigma_P = \sqrt{w_1^2\sigma_1^2 + w_2^2\sigma_2^2 + 2w_1w_2\rho_{1,2}\sigma_1\sigma_2}$$

Using this formula, the existing standard deviation is calculated as follows:

$$\sqrt{0.25^2 \times 0.179^2 + 0.75^2 \times 0.062^2 + 2 \times 0.75 \times 0.25 \times 0.5 \times 0.179 \times 0.062} = 7.90\%.$$

CFA Level I
"Portfolio Risk and Return: Part I," Vijay Singal
Section 2.3.3

120. An asset management firm generated the following annual returns in their US large-cap equity portfolio:

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

The 2012 return needed to achieve a trailing five-year geometric mean annualized return of 5% when calculated at the end of 2012 is *closest* to:

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

Answer = C

$$\bar{R}_G = 0.05 = \sqrt[5]{(1 - 0.348)(1 + 0.322)(1 + 0.111)(1 - 0.014)(1 + R_{2012})} - 1$$

Holding period total return (cumulative) factor calculation through 2011:

(1 – 0.348) × (1 + 0.322) × (1 + 0.111) × (1 – 0.014) = 0.652 × 1.322 × 1.111 × 0.986 = 0.9442.

Compound total return (cumulative) factor at 5% per year of 5% for five years:

$1.05^5 = 1.2763$.

Return needed in 2012 to achieve a compound annualized return of 5%:

1.2763/0.9442 = 1.3517 = 35.2%.

Check: $0.944 \times 1.352 = 1.276^{(1/5)} = 1.050$ = 5% annualized.

CFA Level I
"Portfolio Risk and Return: Part I," Vijay Singal
Section 2.1.3