Questions 1~18 Relate to Ethics

1. Correct answer: C.

Under Standard III(B)-Fair Dealing, members and candidates should disclose to clients and prospective clients how they select accounts to participate in and how they determine the amount of securities each account will buy or sell. Trade allocation procedures must be fair and equitable, and disclosure of inequitable allocation methods does not relieve the member or candidate of this obligation. All discretionary accounts should be treated in the same manner. Treating newer accounts differently would be considered inequitable regardless of whether this policy is disclosed.

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard III(B)

2. Correct answer: B.

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)

3. Correct answer: C.

Although departing employees may not take employer property when departing, as the guidance for Standard IV(A) – Loyalty outlines, the model Piedmont presented to his new employer was not Branch's property. It was created by Piedmont prior to his employment with Branch. The model was not created for Branch in the course of his employment, even though it was adopted by Branch.

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard IV(A)

4. Correct answer: C.

Prior to undertaking analysis with regard to expected returns, an adviser must determine the suitability of an investment class, including whether it fits within the client's risk tolerance and whether it is an allowable asset class as per the client's investment policy statement. Only after these factors have been determined should she proceed, if appropriate, to analyze expected returns to determine a particular investment recommendation.

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard III(C)

5. Correct answer: A.

Standard VI (A) requires disclosure of conflicts but does not prohibit members from making recommendations as long at the potential conflicts are appropriately disclosed.

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard IV(A)

6. Correct answer: A.

Photocopying copyrighted material, regardless of the year of publication, is a violation of Standard I(A) because copyrighted materials are protected by law. Candidates and members must comply with all applicable laws, rules, and regulations and must not knowingly participate or assist in a violation of laws.

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard I(A)

7. Correct answer: C.

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-discrectionary portfolios must not be included in a firm's composites.

CFA Level I

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

8. Correct 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

9. Correct answer: C.

Under Standard I(B), members and candidates must protect their independence and objectivity. Agreeing to provide objective research coverage of a company does not constitute a violation of this standard, provided the analyst writing the report is free to come up with his own independent conclusion. Smith can agree to provide research coverage but cannot commit Granite's research department to providing a favorable recommendation.

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard I(B)

10. Correct answer: C.

A composite must include all actual fee-paying, discretionary portfolios managed in accordance with the same investment mandate, objective, or strategy (Standard IV–Composites). By including both the value and growth portfolios, the composite is made up of portfolios with different investment mandates or strategies.

CFA Level I

"Introduction to the Global Investment Performance Standards (GIPS)"

Composites

11. Correct answer: C.

Historically, the GIPS standards focused primarily on returns. In the spirit of fair representation and full disclosure, and in order to provide investors with a more comprehensive view of a firm's performance, the current GIPS standards includes new provisions related to risk.

CFA Level I

"The GIPS Standards," CFA Institute

Section: Overview

12. Correct 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

13. Correct answer: B.

Prior-clearance processes guard against potential and actual conflicts of interest; members are required to abide by their employer's compliance procedures (Standard VI (B)).

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard V(A), Standard VI(B)

14. Correct 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

15. Correct answer: C.

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

16. Correct answer: C.

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

17. Correct answer: B.

Lan's actions do not violate Standard IV (A) – Duties to Employers. Lan does not use company time to make arrangements for his new venture, nor does he misappropriate any information (financial models or client contacts) from his former employer. All of Lan's actions are permissible under Standard IV (A).

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard IV(A)

18. Correct answer: A.

Members and candidates are required to disclose any compensation arrangement to their employers that involves performing tasks or services that their employers can charge for. Disclosure is required even if the activities occur during non-work hours.

CFA Level I

"Guidance for Standards I-VII," CFA Institute

Standard IV(A) Loyalty to Employer

Questions 19~32 Relate to Quantitative analysis

19. Correct answer: A.

The EBIT-to-interest ratio is equal to 2.0 when the EBIT is $40 million. Given that the values between $36 million and $48 million are equally likely, the probability of the ratio being equal to or less than 2.0 is 33.3% (= [$40 million – $36 million]/[$48 million – $36 million]). Consequently, the probability of the ratio being greater than 2.0 is 66.7% (i.e., 1 – Probability of the ratio being equal to or less than 2.0).

CFA Level I

"Common Probability Distributions," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 3.1

20. Correct answer: B.

First the outcome of interest, –0.40, is standardized for the given normal distribution:

$Z = (X – \mu)/\sigma = (–0.40 – 5.00)/2 = –2.70$.

Then use the table to find the probability of a Z value being 2.70 standard deviations below the mean (i.e., when $z \leq 0$). The value is $1 – P(Z \leq +2.70)$. In this problem, the solution is: 1 – 0.9965 = 0.0035 = 0.35%.

CFA Level I

"Common Probability Distributions," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 3.2

21. Correct answer: B.

Because the screens are independent, the probability of passing all four simultaneously is the product of their respective probabilities:

P(ABCD) = P(A) P(B) P(C) P(D),

where

P(A) = 0.65 and is the probability of passing Valuation Screen 1,

P(B) = 0.45 andis the probability of passing Valuation Screen 2, P(C) = 0.40 andis the probability of passing Valuation Screen 3,

P(D) = 0.30 and is the probability of passing Valuation Screen 4.

P(ABCD) = 0.65 × 0.45 × 0.40 × 0.30 = 0.0351.

Given 1,200 potential investments, approximately 1,200 × 0.0351 = 42.12 ~ 42 will pass the screens.

CFA Level I

"Probability Concepts," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2

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

Section 5

22. Correct answer: B.

Odds are calculated as P(Z)/[1 – P(Z)]. In this problem, 0.14/0.86 = 0.16279 ~ 0.163.

CFA Level I

"Probability Concepts," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2

23. Correct answer: B.

Across two periods, there are four possibilities: an up move followed by an up move ($121.00 end value), an up move followed by a down move ($101.20 end value), a down move followed by an up move ($101.20 end value), and a down move followed by a down move ($84.64 end value). The probability of an up move followed by a down move is 0.40 × 0.60 = 0.24. The probability of a down move followed by an up move is 0.60 ×0.40, which also = 0.24. Both of these sequences result in an end value of $101.20. Therefore, the probability of an end value of $101.20 is 48%. Alternatively, the following formula could be used:

$$\mathrm{p}(\mathrm{X}) = \mathrm{p}(\mathrm{X} = \mathrm{x}) = \binom{n}{x} p^x (1 - p)^{n-x} = \frac{\mathrm{n}!}{(\mathrm{n} - \mathrm{x})!\,\mathrm{x}!} p^x (1 - p)^{n-x} \left(Equation\ 1\right)$$

Where

n = 2 (number of periods)

x = 1 (number of up moves: ud and du)

p = 0.40 (probability of an up move)

$$p(1) = \binom{2}{1} 0.40^1 (1 - 0.40)^{2-1} = \frac{2!}{(2-1)!1!} \times 0.40^1 \times 0.6^1 = 2 \times 0.40 \times 0.60 = 0.48$$

CFA Level I

“Common Probability Distributions,” Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2.2

24. Correct answer: C.

The Sharp ration for a portfolio p, based on historical returns, is defined as

$$S_n = \frac{\overline{R}_p - \overline{R}_f}{S_p}$$

Where $\overline{R}_p$ is the mean return to the portfolio, $\overline{R}_f$ 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

25. Correct answer: C.

A Type I error is the mistake of rejecting the null hypothesis when it is, in fact, true.

CFA Level I

"Hypothesis Testing," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2

26. Correct answer: A.

Using a financial calculator: N = 60; the discount rate, I/Y = (6.5%/12) = 0.54166667; PMT = €1,200; Future value = €0; Mode = Begin; Calculate present value (PV): PV = €61,662.62.

Alternatively: Treat the stream as an ordinary annuity of 59 periods and add the current value of €1,200 to the derived answer. Using a financial calculator: N = 59; the discount rate, I/Y = (6.5%/12) = 0.54166667; PMT = €1,200; Future value = €0; Mode = End; Calculate PV: PV = €60,462.62; Total PV = €1,200 + €60,462.62 = €61,662.62.

CFA Level I

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

Section 6.1

27. Correct answer: B.

A positive "hoped for" condition means that the null will be rejected (and the alternative accepted) only if the evidence indicates that the population parameter is greater than θ0. Thus, H0: θ ≤ θ0 versus Ha: θ > θ0 is the correct statement of the null and alternative hypotheses, respectively.

CFA Level I

"Hypothesis Testing," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2

28. Correct answer: B.

The covariance between Fund A and B, given the standard deviation of returns and the correlation between the two funds, is calculated as :

$$\mathrm{Cov}(\mathrm{R_A}, \mathrm{R_B}) = \rho(\mathrm{R_A}, \mathrm{R_B})\sigma(R_A)\sigma(R_B) = 0.80 \times 7\% \times 13\% = 0.00728,$$

Where

$\sigma(R_A)$ and $\sigma(R_B)$ are the standard deviations of returns of Funds A and B, respectively,

$\rho(\mathrm{R_A}, \mathrm{R_B})$ is the correlation between the returns of Fund A and B.

Then the portfolio standard deviation of returns is calculated as follows:

$$\sigma\left(R_{portfolio}\right) = \left[W_A^2\sigma^2\left(R_A\right) + W_B^2\sigma^2\left(R_B\right) + 2W_AW_B\mathrm{Cov}\left(\mathrm{R_A}, \mathrm{R_B}\right)\right]^{0.5}$$

Where W_A and W_B are the weights of Funds A and B in the portfolio

$$\sigma\left(\mathrm{R_{portfolio}}\right) = \left[0.70^2 0.07^2 + 0.30^2 0.13^2 + 2 \times 0.70 \times 0.30 \times 0.00728\right]^{0.5} = 8.35\%$$

Alternatively , correlation is used directly in the formula for portfolio standard deviation:

$$\sigma\left(R_{portfolio}\right) = \left[W_A^2\sigma^2\left(R_A\right) + W_B^2\sigma^2\left(R_B\right) + 2W_AW_B\rho\left(R_A, R_B\right)\sigma\left(R_A\right)\sigma\left(R_B\right)\right]^{0.5}$$

$$\sigma\left(\mathrm{R_{portfolio}}\right) = \left[0.70^2 0.07^2 + 0.30^2 0.13^2 + 2 \times 0.70 \times 0.30 \times 0.80 \times 0.07 \times 0.13\right]^{0.5}$$
$$= 8.35\%$$

CFA Level I

"Probability Concepts," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 3

29. Correct answer: A.

Given that X and Y are independent, their joint probability is equal to the product of their individual probabilities. In this case: P(XY) = P(X)P(Y) = 0.2 ×0.5 = 0.1.

CFA Level I

"Probability Concepts," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2

30. Correct answer: B.

With a sample size of 10, there are 9 degrees of freedom. The confidence interval concept is based on a two-tailed approach. For a 95% confidence interval, 2.5% of the distribution will be in each tail. Thus, the correct t-statistic to use is 2.262. The confidence interval is calculated as:

$$\overline{\mathrm{X}} \pm t_{0.025}S / \sqrt{n}$$

Where $\overline{\mathrm{X}}$ is the sample mean, s is the sample standard deviation, and n is the sample size. In this case: $6.25 \pm 2.262 \times 12/\sqrt{10} = 6.25 \pm 8.58369$ or –2.33 to 14.83.

CFA Level I

“Sampling and Estimation,” Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 4.2

31. Correct answer: B.

This scenario provides an example of a discrete random variable. The paired outcomes for the dice are indicated in the following table. The outcome of the dice summing to six is the most likely to occur of the three choices because it can occur in five different ways, whereas the summation to five and nine can occur in only four different ways.

Summed Outcome	Paired Outcomes (Die 1, Die 2)	Possible Combinations
5	(1, 4), (2, 3), (3, 2), and (4, 1)	4
6	(1, 5), (2, 4), (3, 3), (4, 2), and (5, 1)	5
9	(3, 6), (4, 5), (5, 4), and (6, 3)	4

CFA Level I

"Common Probability Distributions," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2

32. Correct answer: A.

The two defining properties of a probability are as follows:

1. The probability of any Event E is a number between zero and one.

2. The sum of the probabilities of any set of mutually exclusive and exhaustive events equals one.

CFA Level I

"Probability Concepts," Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle

Section 2

Questions 33~44 Relate to Economics

33. Correct answer: B.

The loss in consumer surplus because of higher prices is represented by area E+F+G+H. This exceeds the gains from producer surplus (E) and government revenues on imports (G). Hence the net welfare effect to the country is a deadweight loss of [E+F+G+H] – [E] – [G] = F+H.

CFA Level 1

“Demand and Supply Analysis: Introduction,” Richard V. Eastin and Gary L. Arbogast, CFA

Sections 3.9, 3.10, 3.13

“International Trade and Capital Flows,” Usha Nair-Reichert, PhD, and Daniel Robert Witschi, PhD, CFA

Section 3.1

34. Correct answer: C.

An increase in capacity utilization will cause an increase in aggregate demand through higher investment and will increase GDP (economic expansion).

CFA Level I

"Aggregate Output, Prices, and Economic Growth," Paul R. Kutasovic and Richard G. Fritz

Section 3.3.1

35. Correct answer: C.

The Fisher effect states that the nominal interest rate is the sum of the real rate of interest and the expected rate of inflation over a given time horizon. An increase in expected inflation will result in a higher nominal rate.

CFA Level I

“Monetary and Fiscal Policy,” Andrew Clare and Stephen Thomas

Section 2.1.7

36. Correct answer: C.

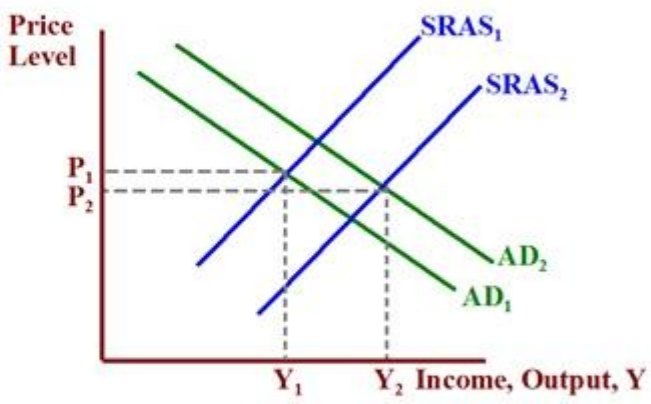
The sum-of-value-added method involves summing the value added (or income created) at each step in the production and distribution process.

CFA Level I

"Aggregate Output, Prices, and Economic Growth," Paul R. Kutasovic and Richard G. Fritz

Section 2.1

37. Correct answer: C.

<table>
<tr>
<td>If both aggregate demand (AD) and aggregate supply (AS) increase, real GDP will increase but the impact on inflation is not clear unless we know the magnitude of the changes because an increase in AD will increase the price level, whereas an increase in AS will decrease the price level. If AD increases more than AS, the price level will increase. If AS increases more than AD, as depicted in the graph to the right, the price level will decline.</td>
<td>
</td>
</tr>
</table>

CFA Level I

"Aggregate Output, Prices, and Economic Growth," Paul R. Kutasovic and Richard G. Fritz

Section 3.4.5

38. Correct 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

39. Correct answer: A.

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

40. Correct answer: B.

Initial Price Quantity Relationship
QDPizza = 11   0.70 PPizza + 0.009 $500   0.20   1.25 = 15.25 – 0.70 PPizza
Resulting Demand Curve: PPizza = 21.79 – 1.43 QDPizza
Price Quantity Relationship at New Income Level
QDPizza = 11   0.70 PPizza + 0.009 $700 - 0.20 1.25 = 17.05 – 0.70 PPizza , Resulting Demand Curve: PPizza = 24.36 – 1.43 QDPizza
The slope of her demand curve for pizza will still be -1.43 even with the higher income of $700 as the increase in income has shifted the demand curve outward and upward but has not affected its slope.

CFA Level I

"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast

Section 3.2

41. Correct answer: C.

If demand is elastic, a 1% reduction in price increases the quantity sold by more than 1%.

CFA Level I

"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast

Section 4.1

42. Correct answer: C.

A recessionary gap arises when equilibrium GDP is below potential GDP. Decreased confidence lowers aggregate demand, which, in turn, leads to economic contractions. As demand declines, companies reduce their workforce and the unemployment rate rises.

CFA Level I

"Aggregate Output, Prices, and Economic Growth," Paul R. Kutasovic and Richard G. Fritz

Section 3.4.2

43. Correct answer: A.

Consumer surplus arises when a consumer pays less for a good than the maximum price that she or he was willing to pay for it. Consumer surplus is the value (or marginal benefit) of a good minus the price paid for it, summed over the quantity bought. Because no consumer will (willingly) pay a price greater than the marginal value or benefit, consumer surplus is always positive.

CFA Level I

"Demand and Supply Analysis: Introduction," Richard V. Eastin and Gary L. Arbogast

Section 3.9

44. Correct answer: A.

A Giffen good is an inferior good. All inferior goods have a negative income effect (less is purchased as income rises). Although the substitution effect is always positive for all goods, for a Giffen good, the income effect is so strong and so negative that it overpowers the substitution effect. The result is that as its price declines, less of it is purchased; this relationship results in a positively sloped individual demand curve. Therefore, it is least likely that the substitution effect is negative.

CFA Level I

"Demand and Supply Analysis: Consumer Demand," Richard V. Eastin and Gary L. Arbogast

Sections 6.3, 6.4

Questions 45~68 Relate to Financial Statement Analysis

45. Correct answer: A.

Common size statements offer a convenient way to compare companies of different magnitudes. Company X reports better (higher) gross margin performance. Company Y reports better (higher) operating margin performance.

Metric (common size)	Company X	Company Y	Comparison
Sales	100%	100%	
Cost of goods sold	51	53	
Gross margin (GM)	49	47	X's GM is higher
Administrative costs	17	15	
Research & development expenses	13	12	
Operating margin (OM)	19	20	Y's OM is higher

CFA Level I

"Understanding Income Statements," Elaine Henry and Thomas R. Robinson

Section 7.1

46. Correct answer: A.

U.S. GAAP requires that long term contracts whose outcomes can be reliably measured should be accounted for using the percentage-of-completion method, based on the stage of completion. Under the original assumptions, the company would have recognized $15 million of revenue.

Calculations Under the Percentage-of-Completion Method	
Costs incurred to date	$12 million
Estimated total costs	$32 million
% total costs incurred to date	37.5%
Total contract revenue	$40 million

% revenue to be recognized	37.5%
Current year revenue	$15 million

Now that the company is unclear on the appropriate design and thus the cost, the outcome cannot be reliably measured. The completed contract method is used. Under this approach, no revenue ($ 0) is recognized until the contract is substantially complete. The difference in reported revenue under the two methods is: $15 million - $0 = $15 million.

CFA Level I

"Understanding Income Statements," Elaine Henry and Thomas R. Robinson

Section 3.2.1

47. Correct answer: B.

Whether the company sells or leases the asset, inventory will be reduced. For sales, the company would report an accounts receivable classified as a current asset (assuming sales terms are not in question). If the leases qualify as finance leases, then the company will report a lease receivable, which is primarily long term. Therefore, compared with selling units outright, the company's current assets are lower under leasing and its liquidity position will decrease.

CFA Level I

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

Section 9.2.2

"Non-Current (Long-Term) Liabilities," Elizabeth A. Gordon and Elaine Henry

Section 3.2.2

48. Correct answer: B.

The general journal records transactions in the order in which they occur (chronological order) and is thus sorted by date.

CFA Level I

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

Section 6.1

49. Correct answer: A.

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

50. Correct answer: C.

If the leases were capitalized, both total assets and liabilities would increase by the present value of the lease payments, as shown in the following table.

Present Value of Operating Lease Payments (€ Millions)
The lease commitments after 2019 are assumed to be the same as in 2019, so there are estimated to be 240/80 = 3 additional payments.
The present value of the operating lease payments can be calculated as the sum of the present values of two annuities-in-advance (PVAADV): a four-year annuity starting immediately (beginning of 2015) and another four-year annuity starting in four years (2019)

Years	Cash Flow × Annuity-in-Advance Factor	Discount	Present Value

		by	at Start of 2015
2015 to 2018	130 × PVAADV (4 years, 6%) = 477.5	Not required	477.5
2019 and beyond	80 × PVAADV (4 years, 6%) = 293.8 at 2019	$\frac{1}{(1.06)^4}$	232.7
		Total	710.2
PVAADV (4 years, 6%) by financial calculator: N = 4; I = 6; PMT = 1; Mode = BGN; Compute PV			
Adjusted Long-Term Debt/Asset Ratio Calculation			
Adjusted long-term debt	1,347 + 710 =	2,057	
Adjusted total assets	20,097 + 710 =	20,807	
Adjusted long-term debt/asset ratio	2,057/20,807 =	9.9%	

Alternatively, the individual cash flows can be separately discounted.

Present Value of Operating Lease Payments (€ millions)

Year	Cash Flow	Cash Flow x PV Factor	PV
0	130	130 × PV(0y, 6.0%)	130.0
1	130	130 × PV(1y, 6.0%)	122.6
2	130	130 × PV(2y, 6.0%)	115.7
3	130	130 × PV(3y, 6.0%)	109.1
4	80	80 × PV(4y, 6.0%)	63.3
Beyond 4	240/80 per year = 3 years	80 × PVA(3y, 6.0%) × PV(4y, 6.0%)	169.4
		Total	710.1
PVA (3 years, 6%) by financial calculator: N = 3; I = 6; PMT = 1; Mode = END; Compute PV			

CFA Level I

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

Section 9.2.1

"Non-Current (Long-Term) Liabilities," Elizabeth A. Gordon and Elaine Henry

Section 3.2.1

51. Correct answer: C.

The IFRS Conceptual Framework specifies a number of general features underlying the preparation of financial statements, including materiality and accrual basis. Matching is not one of those general features; it is a general principle of expense recognition.

CFA Level I

"Financial Reporting Standards," Elaine Henry, Jan Hendrik van Greuning, and Thomas R. Robinson

Sections 5.5, 5.5.2

"Understanding Income Statements," Elaine Henry and Thomas R. Robinson

Section 4.1

52. Correct answer: A.

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

53. Correct answer: B.

The two fundamental qualitative characteristics that make financial information useful are relevance and faithful representation. Materiality relates to the level of detail of the information needed to achieve relevance.

CFA Level I

"Financial Reporting Standards," Elaine Henry, Jan Hendrik van Greuning, and Thomas R.

Robinson

Section 5.2

54. Correct 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

55. Correct answer: B.

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

56. Correct answer: A.

An effective framework should enhance the transparency of the underlying economics through the financial statements; transparency arises through full disclosure and fair presentation.

CFA Level I

"Financial Reporting Standards," Elaine Henry, Jan Hendrik van Greuning and Thomas R. Robinson

Section 6.1

57. Correct answer: B.

The periodic and perpetual systems result in the same inventory and cost of goods sold values (and thus gross profit margin) using both FIFO and specific identification valuation methods but not always under LIFO.

CFA Level I

“Inventories,” Michael A. Broihahn

Section 3.6

58. Correct answer: C.

A liquidity-based presentation can be used when it provides information that is reliable and more relevant. Entities that typically choose this format include banks.

CFA Level I

"Understanding Balance Sheets," Elaine Henry and Thomas R. Robinson

Section 2.2, 2.3

59. Correct answer: B.

Relevance and faithful representation are the two fundamental qualitative characteristics that make financial information useful, according to the IASB Conceptual Framework.

CFA Level I

"Financial Reporting Standards," Elaine Henry, Jan Hendrik van Greuning, and Thomas R. Robinson

Section 5.2

60. Correct answer: A.

Intangible assets with indefinite lives need to be tested for impairment at least annually. Property, plant, and equipment (including land) and intangibles with finite lives are only tested if there has been a significant change or other indication of impairment.

CFA Level I

“Understanding Balance Sheets,” Elaine Henry and Thomas R. Robinson

Sections 4.1, 4.3

“Long-Lived Assets,” Elaine Henry and Elizabeth A. Gordon

Sections 5.1, 5.2, 5.3

61. Correct answer: C.

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

62. Correct answer: C.

There would be no effect on the accounting equation because the company has exchanged one asset for another. Cash has decreased and office equipment, a capital asset, has increased.

CFA Level I

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

Section 4.2

63. Correct answer: B.

Under IFRS, the recovery of a previous write-down is limited to the amount of the original write-down (€20,000) and is reported as a decrease in the cost of sales.

CFA Level I

“Inventories,” Michael A. Broihahn

Section 6

64. Correct 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

65. Correct answer: C.

The used aircraft that the manufacturer buys and leases back are classified as operating leases. For the lessor, these assets under operating leases would be classified in property, plant, and equipment in capital assets and thus would lead to an increase in capital assets. With payments in advance, there would be no lease receivable arising from the operating lease; long-term lease receivables arise from financing leases, not operating leases. Although revenues will increase by the lease payments, the leased assets are depreciated, and therefore EBIT will increase by the lease payment received minus depreciation expense.

CFA Level I

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

Section 9.2.2

"Non-Current (Long-Term) Liabilities," Elizabeth A. Gordon and Elaine Henry

Section 3.2

66. Correct answer: C.

The role of financial reporting is to provide information about the performance of a company, its financial position, and changes in financial position that is useful to a wide range of users in making economic decisions.

CFA Level I

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

Sections 2, 3.1.7

67. Correct answer: A.

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

68. Correct answer: A.

The expensing of the previously capitalized interest is a non-cash amount and does not affect cash flow from operations. Under US GAAP, cash flow from operations is higher as a result of the initial capitalizing of interest but not its subsequent expensing. If the interest had not been capitalized, interest expense would have been greater and net income and cash from operations lower.

CFA Level I

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

Section 2.1

Questions 69~76 Relate to Corporate finance

69. Correct answer: C.

The annual after-tax cost of debt is the after tax annual yield to maturity (YTM). Find the YTM by using a financial calculator as follows:

Present value (PV) = –1,030.34; Future value (FV) = 1,000; N = 40 (20 × 2); Payment (PMT) = 31 (0.062 × 1,000 × ½); compute i.

i = 2.97 semiannually.

Annually, YTM = 2.97 × 2 = 5.94.

Therefore, the associated after-tax value = 0.0428 = 0.0594 × (1 – 0.28).

CFA Level I

“Cost of Capital,” Yves Courtois, Gene C. Lai, and Pamela Peterson Drake

Section 3.1.1

70. Correct answer: B.

The optimal capital budget occurs when the marginal cost of capital (MCC) intersects with (is equal to) the investment opportunity schedule (IOS).

CFA Level I

"Cost of Capital," Yves Courtois, Gene C. Lai, and Pamela Peterson Drake

Section 2.3

71. Correct answer: C.

Note: 60% debt financing is equivalent to a debt-to-equity ratio of 1.50 = 0.60/(1 – 0.60).

βAsset = βEQ × {1/[1 + (1 – t)D/E)]} = 1.4/[1 + (1 – 0.35) × 1.5] = 0.7089.

CFA Level I

“Cost of Capital,” Yves Courtois, Gene C. Lai, and Pamela Peterson Drake

Section 4.1

72. Correct answer: C.

		Company A	Company B	Comparison
Net profit margin	$\frac{\text{ROA}}{\text{Asset rurnover}}$	6.75 ÷1.50 = 4.50%	11.25 ÷2.50 = 4.50%	Same
Financial leverage	$\frac{\text{ROE}}{\text{ROA}}$	10.13 ÷6.75 = 1.50	16.88 ÷11.25 = 1.50	Same

In this instance, times interest earned can be found as the correct answer by process of eliminating the other choices as potential correct answers. Keep in mind, however, that even when companies have equal times interest earned ratios, it does not mean that the amount of interest expense is the same for both because the companies may not be of equal size.

CFA Level I

"Financial Analysis Techniques," by Elaine Henry, Thomas R. Robinson, and Jan Hendrik van Greuning

Sections 4.2–4.3

"Measures of Leverage," by Pamela Peterson Drake, Raj Aggarwal, Cynthia Harrington, and Adam Kobor

Section 3.4

73. Correct 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

74. Correct answer: C.

Incorrect.

Financing costs are not included in a cash flow calculation but are considered in the calculation of the discount rate.

CFA Level I

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

Section 3

75. Correct answer: A.

Use the following formula:

$$r_e = \left(\frac{D_1}{P_0(1 - f)}\right) + g$$

$$0.1229 = \left(\frac{\$0.32}{\$14.69(1 - 0.05)}\right) + 0.10$$

where

D_1 = Expected dividend

P_0 = Current price

f = Flotation costs

g = Growth rate

CFA Level I,

"Cost of Capital," Yves Courtois, Gene C. Lai, and Pamela Peterson Drake

Sections 3.3.2, 4.4

76. Correct answer: C.

The PI is: $1 + \frac{423.11}{16{,}253} = 1.026$

CFA Level I,

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

Section 4.1, 4.6

Questions 77 ~88 Relate to Equity investment

77. Correct answer: C.

Information-motivated traders expect to earn returns in excess of market returns because they trade on securities they believe the market has over- or undervalued. Unlike pure investors, they expect to earn a return on their information in addition to the normal return expected for bearing risk. Excess returns are generated when the market recognizes and corrects the valuation error on such a security.

CFA Level I

"Market Organization and Structure," Larry Harris

Section 2.1.6

78. Correct answer: A.

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

79. Correct answer: C.

Instruments that are infrequently traded and expensive to carry as inventory (e.g., very large blocks of stock, real estate properties, fine art masterpieces, and liquor licenses) are executed in brokered markets. Organizing order-driven markets for such instruments is not sensible because too few traders would submit orders to them.

CFA Level I

“Market Organization and Structure,” Larry Harris

Section 8.2

80. Correct 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

81. Correct answer: C.

Real estate securities qualify as alternative investments.

CFA Level I

"Market Organization and Structure," Larry Harris

Section 3.1

82. Correct answer: C.

Information availability (e.g., active financial news media or information regarding trading activity and traded companies) and financial disclosure should promote or increase market efficiency.

CFA Level I

"Market Efficiency," W. Sean Cleary, Howard J. Atkinson, and Pamela Peterson Drake

Section 2.3

83. Correct answer: A.

Compared with equity indices, the large number of fixed-income securities—combined with the lack of liquidity of some securities—has made it more costly and difficult for investors to replicate fixed-income indices and duplicate their performance.

CFA Level I

“Security Market Indices,” Paul D. Kaplan and Dorothy C. Kelly

Section 6.1

84. Correct answer: C.

Most forward contracts do not require an upfront cash outlay. Other hedging vehicles, such as futures (which require margin accounts) and options (which must be purchased for a fee), do require upfront payments.

CFA Level I

"Market Organization and Structure," Larry Harris

Section 3.4.1

85. Correct answer: A.

An index provider will adjust the value of the divisor as necessary to avoid changes in the index value that are unrelated to changes in the prices of constituent securities.

CFA Level I

"Security Market Indices," Paul D. Kaplan and Dorothy C. Kelly

Section 2

86. Correct answer: C.

Closed-end funds may trade at a premium (discount) to net asset value when investors believe that the portfolio securities are undervalued (overvalued).

CFA Level I

"Market Organization and Structure," Larry Harris

Section 3.2.3

87. Correct answer: C.

Equal weighting assigns an equal weight to each constituent security at inception. Therefore, it is the sum of the total return from each security divided by the number of securities in the portfolios.

Stock	(P1 – P0 + D)/P0	Total Return (%)
A	(37 – 40 + 2.00)/40 =	–2.5
B	(52 – 50 + 1.50)/50 =	7.00
C	(34 – 30 + 0)/30 =	13.33
Portfolio return with equal weighting: (–2.50 + 7.00 + 13.33)/3 =		5.94

CFA Level I

"Security Market Indices," Paul D. Kaplan and Dorothy C. Kelly

Section 3.2.2

88. Correct answer: B.

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

Questions 89~94 Relate to Derivatives

89. Correct answer: B.

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.

2015 CFA Level 1

"Basics of Derivative Pricing and Valuation," Don M. Chance, CFA

Section 3.1.3

90. Correct answer: C.

One benefit of derivatives markets is information discovery. Implied volatility reveals information about the risk of the underlying. Increases in implied volatility are an implication of increased market uncertainty.

CFA Level I

"Derivative Markets and Instruments," Don M. Chance

Section 5.2

91. Correct 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 $V_t(T) = S_t - (y - \theta)(1 + r)^t - F_0(T)(1 + r)^{-(T-t)}$ and an initial value $V_t(0)$ of zero, large benefits γ explain why the spot price can exceed the forward price.

2015 CFA Level 1

"Basics of Derivative Pricing and Valuation," Don M. Chance, CFA

Section 2.2.5

92. Correct answer: C.

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

93. Correct answer: A.

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

94. Correct answer: A.

The forward price is the spot price compounded at the risk-free rate over the life of the contract. Since Contract 2 has the longer life, compounding will lead to a larger value.

CFA Level I

"Basics of Derivative Pricing and Valuation," Don M. Chance

Section 3.1.2

Questions 95~106 Relate to Fixed-income Analysis

95. Correct answer: A.

Because the security's coupon rate moves in the opposite direction (or inversely) from the risk-free rate, it is an inverse floater. (Specifically, Coupon rate = 12.00% – 2 ×Risk-free rate.)

CFA Level 1

"Fixed-Income Securities: Defining Elements," Moorad Choudhry and Stephen E. Wilcox

Section 4.2

96. Correct answer: B.

The size of the spread between the bid price and the ask price is the primary measure of market liquidity of the issue. Market liquidity risk is the risk that the investor will have to sell a bond below its indicated value. The wider the bid–ask spread, the greater the market liquidity risk.

CFA Level I

"Fundamentals of Credit Analysis," Christopher L. Gootkind

Section 2

97. Correct answer: B.

The forward and spot curves are interconnected to each other. The spot curve can be calculated from the forward curve, and the forward curve can be calculated from the spot curve. Either curve can be used to value fixed-rate bonds.

CFA Level I

"Introduction to Fixed-Income Valuation", James F. Adams and Donald J. Smith

Section 4

98. Correct answer: C.

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

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

99. Correct answer: A.

When interest rates are low, the callable bond's price will not increase as much because the presence of the call option will limit the price increase. Because the bond is likely to be called when interest rates are falling, the embedded call option will reduce the effective duration of the bond.

CFA Level 1

"Understanding Fixed-Income Risk and Return," James F. Adams and Donald J. Smith

Section 3.3

100. Correct answer: A.

An original issue discount tax provision allows the investor to increase the cost basis of the bond, so when the bond matures, the investor faces no capital gain or loss.

CFA Level 1

"Fixed-Income Securities: Defining Elements," Moorad Choudhry and Stephen E. Wilcox

Section 3.3

101. Correct answer: B.

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

102. Correct answer: A.

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

103. Correct answer: B.

Securitization allows banks to originate (or create) loans and the process results in a reduction in the layers between borrowers and ultimate investors. The loans are repackaged into more complex, not simpler, structures.

CFA Level I

"Introduction to Asset-Backed Securities", Frank J. Fabozzi

Section 2

104. Correct answer: B.

A callable bond exhibits negative convexity at low yield levels and positive convexity at high yield levels.

CFA Level 1

"Understanding Fixed-Income Risk and Return," James F. Adams and Donald J. Smith

Section 3.6

105. Correct answer: A.

The value of a zero-coupon bond is,

$$= \frac{\text{Face value}}{(1 + r)^N}$$

where r is the market discount rate per period and N is the number of evenly spaced periods to maturity. The value of the zero-coupon bond is,

$$= \frac{\$1{,}000}{(1 + 0.12 / 2)^{18\times 2}} = \$122.74$$

CFA Level I

"Introduction to Fixed-Income Valuation," James F. Adams and Donald J. Smith

Section 2.1

106. Correct answer: A.

The bank does not have a claim against the borrower for the shortfall of $150,000 on the mortgage balance outstanding relative to the proceeds received from the property's sale indicating that the home mortgage is a non-recourse loan.

CFA Level I

"Introduction to Asset-Backed Securities", Frank J. Fabozzi

Section 4.5

Questions 107~110 Relate to Alternative Investments

107. Correct answer: B.

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%.

2014 CFA Level I

"Introduction to Alternative Investments," by Terri Duhon, George Spentzos, and Scott D. Stewart

Section 3.3

108. Correct answer: C.

A limited partnership that takes long and short positions in publicly traded equity is one type of hedge fund, a category of alternative assets.

CFA Level I

"Introduction to Alternative Investments," Terri Duhon, George Spentzos, and Scott D. Stewart

Section 2.1

109. Correct 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

110. Correct answer: C.

A master limited partnership (MLP) is publicly traded, whereas a private equity fund is not. Therefore the MLP will have market pricing information to help with valuation. A brownfield investment is an existing asset that likely has operational and financial history to aid in valuation; whereas a greenfield investment is in new construction.

CFA Level I

"Introduction to Alternative Investments," Terri Duhon, George Spentzos, and Scott D. Stewart

Section 7

Questions 111 ~120 Relate to Portfolio Management

111. Correct answer: C.

The statement is an absolute risk objective because it expresses a maximum loss in value with an associated probability of loss.

CFA Level I

"Basics of Portfolio Planning and Construction," Alistair Byrne and Frank E. Smuddle

Section 2.2

112. Correct answer: C.

Because the estimated return on the stock is lower than the expected return using the CAPM, the stock does not compensate the investor for the level of risk and so it is most likely overvalued.

CFA Level I

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

Section 4.3

113. Correct answer: A.

For an investor who holds a fully diversified portfolio, the Treynor ratio and Jensen's alpha are the appropriate portfolio performance measures. They are appropriate because in a fully diversified portfolio, only systematic risk matters; both these metrics measure performance relative to beta or systematic risk.

CFA Level I

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

Section 4.3

114. Correct 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. Correct answer: A.

An organization with a strong competitive position can recover from losses more easily than one with a weaker competitive positive. Therefore an organization's risk tolerance should reflect its competitive position. An organization's size does not define the risks sources it faces or the relative losses it can absorb; therefore it should not be reflected in its risk tolerance. Neither the risk sources affecting an organization nor the size of the losses an organization can absorb are a function of its perception of market stability.

CFA Level I

"Risk Management: An Introduction," Don M. Chance and Michael Edelson

Section 3.2

116. Correct answer: B.

We first compute the firm's beta using: $\beta_i = \dfrac{\rho_{i,m}\sigma_i}{\sigma_m}$ The beta is: $\beta_i = \dfrac{0.8(0.30)}{0.15} = 1.6$ The expected return is computed using: $E(R_i) = R_f + [E(R_m) - R_f]\beta_i$ So, $E(R_i) = 0.06 + (0.08)1.6 = 18.8\%$

CFA Level I

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

Sections 3.2 and 4.2

117. Correct answer: C.

Investor B has a higher risk aversion coefficient, which means a lower risk tolerance and a lower expected return on the capital allocation line.

CFA Level I

"Portfolio Risk and Return: Part I," Vijay Singal

Section 3.3

118. Correct answer: A.

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

119. Correct answer: A.

Insurance companies need to be relatively conservative and liquid, given the necessity of paying claims when due.

CFA Level I

"Portfolio Management: An Overview," Robert M. Conroy and Alistair Byrne

Section 3

120. Correct answer: B.

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