Questions 1~18 Relate to Ethics

1. Correct answer: A.

Members and candidates must self-disclose on the annual Professional Conduct Statement all matters that question their professional conduct, such as involvement in civil litigation or criminal investigations or being the subject of a written complaint.

CFA Level I

"Code of Ethics and Standards of Professional Conduct"

2. Correct answer: B.

Selling stock short is a management strategy and does not necessarily violate any aspect of the Standards of Professional Conduct.

CFA Level I

"Guidance for Standards I–VII"

Standard II(B)–Market Manipulation

3. Correct answer: C.

Kozniak does not appear to have violated any CFA Institute Standards of Professional Conduct. Because she is known in the market for investing and brokering property and both parties have worked with Kozniak in the past, both parties would know of her interests. In addition, in both cases, she acts for her own account as a primary investor, not as a broker. She buys the property for her own portfolio and then sells the property from her own portfolio. Therefore, Kozniak did not violate Standard VI(A)–Disclosure of Conflicts. When she purchased the property for her portfolio, she saved her client from losing the building to the bank and did not charge a sales commission. Because the sale of the property to her other client did not take place until six months after her purchase, and she was unable to contact the client who had earlier expressed interest prior to her purchase, she cannot be accused of violating Standard III(A)–Loyalty, Prudence, and Care with either client.

CFA Level I

"Guidance for Standards I–VII"

Standard III(A)–Loyalty, Prudence, and Care, Standard VI(A)–Disclosure of Conflicts

4. Correct answer: B.

The portfolio manager received permission to use his investment performance history from his prior employer. The member violated his non-solicitation agreement by indicating his availability to new clients on several social media sites accessible by clients of his former employer. This action is a violation of Standard IV(A)–Loyalty because he did not act for the benefit of his former employer. In this case, the member may cause harm to his former employer if his messages result in clients moving to his new business from his former employer. The member also violated Standard IV(A) by taking his employer's property, the trading software.

CFA Level I

"Guidance for Standards I–VII"

Standard IV(A)–Loyalty

5. Correct answer: A.

The analyst has conducted thorough research that indicates the company falsified its financial results, and she should request the company address this issue publicly as recommended by Standard II(A)–Material Nonpublic Information. If a member or candidate determines that information is material, the member or candidate should make reasonable efforts to achieve public dissemination of the information. This effort usually entails encouraging the issuer company to make the information public. If public dissemination is not possible, the member or candidate must communicate the information only to the designated supervisory and compliance personnel within the member's or candidate's firm and must not take investment action on the basis of the information.

CFA Level I

"Guidance for Standards I–VII"

Standard II(A)–Material Nonpublic Information

6. Correct answer: B.

The member misrepresented the returns she could realistically achieve for her clients, violating Standard I(C)–Misrepresentation, which prohibits members and candidates from guaranteeing clients any specific return on volatile investments.

CFA Level I

"Guidance for Standards I–VII"

Standard I(C)–Misrepresentation

7. Correct answer: A.

Miffitt has not violated Standard III (E)–Preservation of Confidentiality, which involves information about former, current, and prospective clients.

CFA Level I

"Guidance for Standards I–VII"

Standard II(A)–Material Nonpublic Information, Standard II(B)–Market Manipulation, Standard III(E)–Preservation of Confidentiality

8. Correct answer: B.

Under Standard IV(C)–Responsibility of Supervisors, a member should exercise reasonable supervision by establishing and implementing compliance procedures in place prior to the possibility of any violation occurring, which has not been done in this case.

CFA Level I

"Guidance for Standards I–VII"

Standard IV(C)–Responsibilities of Supervisors

9. Correct answer: C.

The GIPS standards state that firms must make every reasonable effort to provide a compliant presentation to all prospective clients. As long as a prospective client has received a compliant presentation within the previous 12 months, the firm has met this requirement. It is a GIPS recommendation, not a requirement, that all clients receive a compliant presentation on an annual basis.

CFA Level I

"Global Investment Performance Standards (GIPS)"

GIPS Requirement 0.A.9, GIPS Recommendation 0.B.4

10. Correct answer: A.

The utility is not a suitable investment for a fund that only invests in companies with good environmental records. Continuing to hold this investment, therefore, was a violation of Standard III(C)–Suitability.

CFA Level I

"Guidance for Standards I–VII"

Standard I(B)–Independence and Objectivity, Standard III(C)–Suitability, Standard VI(A)–Disclosure of Conflicts

11. Correct answer: B.

Standard VI(A)–Disclosure of Conflicts requires the disclosure of conflicts. For Meir to understand what potential conflicts of interest employees may have with the firm and with their clients, he would need to know the outside interests of each staff member. The staff members themselves may not know enough about the company and its clients to disclose those interests that would present a potential conflict. Therefore, it may be best to have all employees declare their outside business interests on an annual basis so Meir can make the determination as to what outside business interests need to be disclosed to clients.

CFA Level I

"Guidance for Standards I–VII"

Standard VI(A)–Disclosure of Conflicts

12. Correct answer: B.

A personal bankruptcy does not necessarily constitute a violation of Standard I(C)–Misrepresentation or Standard I(D)–Misconduct. If the circumstances of the bankruptcy involved fraudulent or deceitful business conduct, then failing to disclose it may constitute a violation of the Standards of Professional Conduct.

CFA Level I

"Guidance for Standards I–VII"

Standard I(C)–Misrepresentation, Standard I(D)–Misconduct

13. Correct answer: C.

To claim compliance, firms must meet all GIPS requirements, not just calculate their performance according to GIPS requirements.

CFA Level I

“The GIPS Standards,” CFA Institute

Section: Provisions of the Global Investment Performance Standards

14. Correct answer: C.

The prospective supervisor's first step should be to not take the position. Accepting the position with inadequate procedures in place or improper marketing material would leave Inkster at risk of incurring a violation of Standard IV(C)–Responsibilities of Supervisors. She could agree to be hired as an interim consultant with the bank in order to implement adequate procedures before taking on any supervisory role.

CFA Level I

"Guidance for Standards I–VII"

Standard IV(C)–Responsibilities of Supervisors

15. Correct answer: A.

Both Musa and Kassim violated the Standards of Professional Conduct. Musa violated Standard IV(C)–Responsibilities of Supervisors by not ensuring policies were in place to prevent violations of the Standards of Professional Conduct (in this case, Standard VI(B)–Priority of Transactions) by someone subject to her supervision. As the head of compliance, Musa supervised Kassim and must meet her supervisory responsibilities outlined in the Standards of Professional Conduct. Kassim violated Standard VI(B)–Priority of Transactions because he did not give sufficient priority to Dunfield's clients before trading on his recommendation.

CFA Level I

"Guidance for Standards I–VII"

Standard IV(C)–Responsibilities of Supervisors, Standard VI(B)–Priority of Transactions

16. Correct answer: A.

By failing to adhere to the non-compete clause he agreed to abide by when signing his employment contract, Hasina shows a lack of professional integrity toward his employer. This behavior reflects poorly on the good reputation of members and is a violation of the Code of Ethics, which states that members and candidates must act with integrity, and Standard I (D)–Misconduct, which states that members and candidates must not engage in any professional conduct involving dishonesty, fraud, or deceit or commit any act that reflects adversely on their professional reputation, integrity, or competence. The Code of Ethics at times requires a member or candidate to uphold a higher standard than that required by law, rule, or regulation—or in this case, the strict application of the employment agreement.

CFA Level I

"Code of Ethics and Standards of Professional Conduct," "Guidance for Standards I–VII"

Standard I(A)–Knowledge of the Law, Standard I(D)–Misconduct

17. Correct answer: B.

In order to avoid violating Standard III(E)–Preservation of Confidentiality, Staal should determine whether applicable securities regulations require disclosing the records before she provides the confidential information concerning her client's investments.

CFA Level I

"Guidance for Standards I–VII"

Standard III(E)–Preservation of Confidentiality

18. Correct answer: A.

Compliance with the GIPS standards does not eliminate the need for in-depth due diligence on the part of the investor.

CFA Level I

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

Questions 19~32 Relate to Quantitative analysis

19. Correct answer: B.

A confidence interval for a parameter = Point estimate ± Reliability factor × Standard error. For example, the reliability factors for confidence intervals based on the standard normal distribution are 1.65 for 90% confidence intervals and 1.96 for 95% confidence intervals. For a given point estimate and standard error, the confidence interval will be narrower with a lower reliability factor.

CFA Level I

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

Section 4.2

20. Correct answer: A.

For a positively skewed unimodal distribution, the mode is less than the median, which is 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

Section 8

21. Correct answer: C.

Failure to reject a false null hypothesis is a Type II error.

CFA Level I

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

Section 2

22. Correct answer: C.

The appropriate test statistic is a z-statistic because the sample comes from a normal distributed population with known variance. A z-test does not use degrees of freedom. This test is two-sided at the 0.05 significance level, and the rejection point conditions are $z > 1.960$ and $z < -1.960$.

CFA Level I

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

Section 3

23. Correct answer: B.

Correlation of returns between Asset A and B ρ(RA, RB), is defined as:

$\rho(R_A, R_B) = Cov(R_A, R_B)/\sigma(R_A)\sigma(R_B)$,

where

R_A and R_B are the returns of Asset A and B

$Cov(R_A, R_B)$ is the covariance of returns between Asset A and B

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

In this problem, the correlation is $600/(\sqrt{625} \times \sqrt{1,225}) = 0.6857 \approx 0.69$.

CFA Level I

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

Section 3

24. Correct answer: C.

Given a population that has a finite variance and a large sample size, the central limit theorem establishes that the sampling distribution of sample means will be approximately normal, the distribution of sample mean will have a mean equal to the population mean, and will have a variance equal to the population variance divided by the sample size.

CFA Level I

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

Section 3.1

25. Correct answer: C.

Resistance is defined as a price range in which selling activity is sufficient to stop the rise in price.

CFA Level I

"Technical Analysis," Barry M. Sine and Robert A. Strong

Section 3.2

26. Correct answer: C.

The p-value is the smallest level of significance at which the null hypothesis can be rejected. In this case, the given p-value (0.0275) is less than the given level of significance (0.05); therefore, 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

27. Correct answer: A.

By the definition of p-value, 0.03 is the smallest level of significance at which the null hypothesis can be rejected. An analyst cannot reject the null hypothesis at the 0.01 significance level.

CFA Level I

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

Section 2

28. Correct answer: A.

An opportunity cost is the value that investors forgo by choosing a particular course of action.

CFA Level I

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

Section 2

29. Correct answer: B.

Events are exhaustive when they cover all possible outcomes. Mutually exclusive means that only one event can occur at a time. Two events are dependent if the occurrence of one event does affect the probability of occurrence of the other event. In this situation, Event A and B are both mutually exclusive (because they cannot occur at the same time) and dependent (because if one event occurs, the probability of the other becomes zero). However, the two events are not exhaustive because they do not cover the event that the fund will earn a return above 5%.

CFA Level I

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

Section 2

30. Correct answer: A.

The t-statistic for the given information (normally distributed populations, population variances assumed equal) is calculated as:

$$t = \frac{\left(\overline{X}_1 - \overline{X}_2\right) - \left(\mu_1 - \mu_2\right)}{\left(\frac{s_P^2}{n_1} + \frac{s_P^2}{n_2}\right)^{0.5}}$$

In this case, we have:

s_P^2 = 2678.05.

$$t = \frac{\left(200 - 185_2\right) - \left(0\right)}{\left(\frac{2678.05}{25} + \frac{2678.05}{18}\right)^{0.5}} = 0.93768 \approx 0.94$$

CFA Level I

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

Section 3.2

31. Correct answer: B.

Nonparametric procedures are primarily used in three situations: when the data are given in ranks, when the data do not meet distributional assumptions, or when the hypothesis being addressed does not concern a parameter.

CFA Level I

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

Section 5

32. Correct answer: C.

The most appropriate test statistic for the difference between two population means (unequal and unknown population variances) is $t = \frac{\left(\overline{X}_1 - \overline{X}_2\right) - \left(\mu_1 - \mu_2\right)}{\left(\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}\right)^{0.5}}$

CFA Level I

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

Section 3.2

Questions 33~44 Relate to Economics

33. Correct answer: B.

In first-degree price discrimination, the entire consumer surplus is captured by the producer; the consumer surplus falls to zero.

CFA Level I

"The Firm and Market Structures," Richard G. Fritz and Michele Gambera

Section 6.4

34. Correct answer: C.

Using the expenditures approach:

GDP = Consumer spending on goods and services + Business gross fixed investment + Change in inventories + Government spending on goods and services + Government gross fixed investment + Exports – Imports + Statistical discrepancy

Consumer spending on goods and services	875,060
Business gross fixed investment	286,400
Change in inventories	(68,500)
Government spending on goods and services	305,600
Government gross fixed investment	84,120
Exports	219,800
Imports	(250,980)
Statistical discrepancy	(2,850)
= Gross domestic product (GDP)	1,448,650

CFA Level I

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

Sections 2.2, 2.3

35. Correct answer: A.

Cost-push inflation arises due to increases in costs associated with production: wages and raw materials prices.

CFA Level I

“Understanding Business Cycles,” Michele Gambera, Milton Ezrati, and Bolong Cao

Section 4.2.4.1

36. Correct answer: C.

Prior to the price ceiling, the total surplus was d + e + f + g + h, consisting of consumer surplus of f + e and producer surplus of d + g + h. The price ceiling causes the quantity supplied to decrease to QC and for those consumers who can find supply to gain consumer surplus of g at the expense of producers. With the decline in supply, consumers lose consumer surplus e and producers lose producer surplus d for a combined deadweight loss of d + e.

CFA Level I

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

Section 3.13

37. Correct answer: C.

The optimal output level is 60 units as that level produces the highest profit:

Output (units)	Price ($/unit)	Total Revenue ($)	Total Costs ($)	Profit ($)
20	2,800	56,000	10,600	45,400
40	2,600	104,000	32,600	71,400
60	2,400	144,000	66,600	77,400
80	2,200	176,000	112,600	63,400
100	2,000	200,000	170,600	29,400

CFA Level I

“The Firm and Market Structures,” Richard G. Fritz and Michele Gambera

Sections 6.1, 6.2, 6.3

38. Correct answer: B.

The characteristics of monopolistic competition include a large number of competitors, low pricing power, and the production of differentiated products (through advertising and other non-price strategies), but these still result in some pricing power. The ease of entry results in zero economic profits in the long run.

CFA Level I

"The Firm and Market Structures," Richard G. Fritz and Michele Gambera

Sections 2.1, 2.2, 4

39. Correct answer: C.

Nominal GDP is defined as the value of goods and services measured at current prices. Real GDP is not affected by price increases while nominal GDP and the GDP deflator increase with price increases:

Real GDPcurrent year = Nominal GDPcurrent year ×100 ÷ GDP deflator

Real GDPcurrent year = PXbase year × QXcurrent year

CFA Level I

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

Section 2.1.2

40. Correct answer: A.

At full employment, a weaker currency reduces the purchasing power of all domestic currency denominated assets (including the present value of current and future income). Households respond by reducing general expenditures and increasing savings. This response is the wealth effect and reflects the proportion of one's income that is saved (or spent).

CFA Level I

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

Section 6.2

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

Section 3.3.1

"Currency Exchange Rates," William A. Barker, Paul D. McNelis, and Jerry Nickelsburg

Sections 5.1, 5.2

41. Correct answer: B.

A shift in the demand curve results from a change in any variable other than the good's own price, Px. Given the demand function, a change in either Py or I would result in a shift in the demand curve. A change in quantity demanded, which refers to a movement along the demand curve, arises when the good's own price changes.

CFA Level I

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

Section 3.2

42. Correct answer: B.

In a perfectly competitive market, sellers have no pricing power and thus sell their product at the price established by demand and supply in the market – the market equilibrium price.

CFA Level I

"The Firm and Market Structures, " Richard G. Fritz and Michele Gambera

Section 3.3

43. Correct answer: A.

<table>
<tr><td colspan="4">Each company will consider the other’s reaction in selecting its strategy. Using the following summary, it is best for both chains to provide 24-hour service.</td></tr>
<tr><td>Chain</td><td colspan="2">Consideration</td><td>Best Decision</td></tr>
<tr><td rowspan="2">1</td><td colspan="2">If it opens for 24 hours, it will see a higher payoff regardless of what Chain 2 does.</td><td rowspan="2">Open for 24 hours</td></tr>
<tr><td>Chain 2
Closes at 9 p.m.</td><td>Chain 2
Opens for 24 hours</td></tr>
</table>

<table>
<tr><td></td><td>Chain 1 earns 540 instead of 180</td><td>Chain 1 earns 108 instead of 55</td><td></td></tr>
<tr><td rowspan="3">2</td><td colspan="2">If it opens for 24 hours, it will see a higher payoff regardless of what Chain 1 does.</td><td rowspan="3">Open for 24 hours</td></tr>
<tr><td>Chain 1
Closes at 9 p.m.</td><td>Chain 1
Opens for 24 hours</td></tr>
<tr><td>Chain 2 earns 592 instead of 290</td><td>Chain 2 earns 140 instead of 75</td></tr>
</table>

CFA Level I

“The Firm and Market Structures,” Richard G. Fritz and Michele Gambera

Section 5.1

44. Correct answer: A.

<table>
<tr><td colspan="6">The profit maximizing output will arise when MR = MC</td></tr>
<tr><td colspan="6">MR = 150 - 10 × Q = MC = 3 × Q2 - 20 × Q + 73</td></tr>
<tr><td colspan="6">On reduction, this becomes: 3 x Q2 - 10 ×Q - 77 = 0</td></tr>
<tr><td colspan="6">Only with Q=7 will this equation be satisfied: 3 × 72 – 10 × 7 -77 = 0</td></tr>
<tr><td colspan="6"></td></tr>
<tr><td colspan="6">Alternatively: by comparing net profit under each alternative</td></tr>
<tr><td>Units</td><td>Marginal revenue</td><td>Marginal cost</td><td>TR</td><td>TC</td><td>Net Profit</td></tr>
<tr><td>7</td><td>150 - 10 × 7 = 80</td><td>3 × 7 2 - 20 × 7 + 73 = 80</td><td>805</td><td>484</td><td>321</td></tr>
<tr><td>8</td><td>150 - 10 × 8 = 70</td><td>3 × 8 2 - 20 × 8 + 73 = 105</td><td>880</td><td>576</td><td>304</td></tr>
<tr><td>11</td><td>150 - 10 × 11 = 40</td><td>3 × 11 2 - 20 × 11 + 73 = 216</td><td>1045</td><td>1045</td><td>0</td></tr>
</table>

CFA Level I

"The Firm and Market Structures," Richard G. Fritz and Michele Gambera

Section 5.1

Questions 45~68 Relate to Financial Statement Analysis

45. Correct answer: C.

A decrease in the tax rate will result in a decrease in the previously reported amounts of deferred tax assets. That is, the value of the future tax assets, based on the new lower rate, is reduced for offsetting future tax payments.

CFA Level I

“Income Taxes,” Elbie Antonites and Michael A. Broihahn

Section 3.3

46. Correct answer: C.

When a long lived asset is sold only the net gain or loss is reported on the income statement. The gain or loss on a sale = sales proceeds – carrying amount = $80,000 – $70,000 = $10,000 gain.

CFA Level I

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

Section 6.1

47. Correct answer: C.

The direct method of cash flow statement presentation shows the specific cash inflows and outflows that result in reported cash flow from operating activities (e.g., cash from customers and cash to suppliers). Companies using IFRS can decide to report interest and dividend receipts as either an investing or operating activity, whereas under US GAAP, they must report such income as an operating activity. The listed operating and investment activities indicate that the company reports under IFRS using the direct method.

CFA Level I

"Understanding Cash Flow Statements," Elaine Henry, Thomas R. Robinson, Jan Hendrik van Greuning, and Michael A. Broihahn

Sections 2.3, 2.3.2, 3.2.1.5

48. Correct answer: C.

Under US GAAP, bank overdrafts are not considered part of cash and cash equivalents and are classified as financing cash flows.

CFA Level I

"Understanding Cash Flow Statements," Elaine Henry, Thomas R. Robinson, Jan Hendrik van Greuning, and Michael A. Broihahn

Section 2.2

49. Correct answer: C.

Income tax expense equals income tax payable (the tax rate multiplied by the taxable income) plus the increase in the deferred tax liabilities.

(0.30 × $215,000) + ($90,650 – $82,400) = $64,500 + $8,250 = $72,750.

CFA Level I

“Income Taxes,” Elbie Antonites and Michael A. Broihahn

Section 2

50. Correct answer: A.

The SEC now advocates for global accounting standards through public announcements, such as its "Statement in Support of Convergence and Global Accounting Standards" (2010). In the past, the SEC had required reconciliations between IFRS and US GAAP, but these requirements were withdrawn in 2008. The SEC now imposes no requirements on its issuers.

CFA Level I

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

Section 4

51. Correct answer: B.

The Deferred tax asset is based on the temporary difference arising from the difference in the carrying value for taxes vs. the financial statements = (120,000 – 100,000) × 17%= 3,400. The rate that should be used is the rate expected when the reversal will occur which is now the lower rate of 17%.

CFA Level I

"Income Taxes," Elbie Antonites and Michael A. Broihahn

Section 3.3

52. Correct answer: A.

A common-size balance sheet expresses all balance sheet accounts as a percentage of total assets and would provide insight into what portion of a company's assets is liquid. On the other hand, cash and current ratios measure liquidity relative to current liabilities, not relative to total assets.

CFA Level I

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

Sections 7.1, 7.2

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

Section 3.2.1

53. Correct answer: A.

Under IFRS (International Financial Reporting Standards), first determine the recoverable amount, which is the higher of value in use (the present value of the expected future cash flows) = $32,000 or fair value minus costs to sell = $34,000 – 4,000 = $30,000

The recoverable amount ($32,000) is lower than the carrying value ($36,000). Therefore, the asset is impaired and should be written down to that amount.

Under US GAAP, to assess impairment, the carrying value ($36,000) is compared with the undiscounted expected future cash flows ($38,000). In this case, the carrying value is lower so the patent is not impaired.

CFA Level I

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

Sections 5.1, 5.2

54. Correct answer: A.

US GAAP prohibits the revaluation of PPE. Therefore, this is a source of an important difference between US GAAP and IFRS with respect to reporting of income taxes.

CFA Level I

"Income Taxes," Elbie Antonites and Michael A. Broihahn

Section 8

55. Correct answer: C.

Because the asset is self-constructed, the costs of specifically identifiable interest during the construction period can be capitalized and included in the cost of the showroom.

	€ Millions
Construction costs	38.5
Interest expense in 2012 and 2013: 0.08 × €30 × 2 years	4.8
Total capitalized cost	43.3
Straight line depreciation expense: (Capitalized cost – Residual value)/Useful life = (43.3 – 5.0)/40	0.9575

CFA Level I

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

Sections 2.1, 3.1

56. Correct answer: C.

	Current Ratio	Cash Ratio	Quick Ratio
Numerator	Current assets = Cash + Marketable securities + Receivables + Inventory	Cash + Marketable securities	Cash + Marketable securities + Receivables
Denominator	Current liabilities	Current liabilities	Current liabilities
Current year			
Numerator	114 + 23 + 231 + 462	114 + 23 = 137	114 + 23 + 231 = 368

	= 830		
Denominator	390	390	390
Ratio: Current year	2.13	0.35	0.94
Ratio: Prior year	2.19	0.37	0.97
Change in ratio	–0.06	–0.02	–0.03

CFA Level I

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

Section 7.2

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

Section 4.3

57. Correct answer: B.

The allowance for doubtful accounts increases by the bad debt expense recognized for the year and decreases by the amounts written off during the year.

Beginning balance allowance for doubtful accounts	£56 million
Plus bad debt expense	?
Minus write-offs	– £84 million
Ending balance allowance for doubtful accounts	£92 million
Solve for bad debt expense = £120 million.	

CFA Level I

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

Section 3.1.3

58. Correct answer: C.

With accelerated amortisation, first year amortisation expense is the highest.

CFA Level I

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

Sections 3.1, 3.2

59. Correct answer: A.

Net income = Comprehensive income – Other comprehensive income	\$193.0 – \$87.6	\$105.4 million
Net income per share (EPS) = Net income/Common shares outstanding	\$105.4/46.5	\$2.27 million
P/E = Stock price/EPS	\$60.75/\$2.27	26.76

CFA Level I

“Understanding Income Statements,” Elaine Henry and Thomas R. Robinson

Section 8

“Financial Analysis Techniques,” Elaine Henry, Thomas R. Robinson, and Jan Hendrik van Greuning

Section 5.1

60. Correct answer: A.

The notes provide a comprehensive description of all of the entity's accounting policies, irrespective of whether judgment was required or whether the policies are important in understanding the financial statements.

CFA Level I

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

Section 8.3.1

61. Correct answer: C.

The primary benefit of the direct method is that it provides information on the specific sources of operating cash receipts and payments.

CFA Level I

"Understanding Cash Flow Statements,"Elaine Henry, Thomas R. Robinson, Jan Hendrik van Greuning, and Michael A. Broihahn

Section 2.3

62. Correct answer: C.

Cost of sales is reported on the same basis as revenue. To report revenue under gross reporting, the e-commerce company must meet four criteria:

Criteria	Met/Not Met
The e-commerce company must	
be the primary obligor under the contract.	Not met
bear the inventory risk and credit risk.	Not met
be able to choose its supplier.	Met
also have reasonable latitude to establish pricing.	Met

The first criterion is not met. The major hotel chains have the obligation of fulfilling the room contract once it is entered into. The second criterion is not met either because the e-commerce company did not incur costs for vacant rooms. The major chains bear the inventory risk. Because all criteria are not met, the e-commerce company must use net reporting for which revenue is \$500,000 and cost of sales is \$250,000.

CFA Level I

“Understanding Income Statements,” Elaine Henry and Thomas R. Robinson

Section 3.2.4

63. Correct answer: C.

Whether securities are classified as held for trading or available for sale, they are measured at their fair value on the balance sheet. All gains/losses on held-for-trading securities are reported on the income statements, whereas the unrealized gains/losses on available-for-sale securities are reported in equity. This treatment is the same for both IFRS and US GAAP reporting.

CFA Level I

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

Section 8

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

Section 4.5

64. Correct answer: C.

The revenue/expense-based approach is a measurement approach, not a standard setting approach.

CFA Level I

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

Sections 2, 6.2

65. Correct answer: C.

Deferred tax balances result from temporary differences between a company’s income as reported for tax purposes and income reported for financial statement purposes. The temporary difference in this case arises from the difference between the depreciation for accounting purposes and the depreciation for tax purposes. Because of this difference, the company would report more income tax expense than would actually be paid in taxes. The difference is a deferred tax liability.

Temporary difference balance = Depreciation expense for accounting purposes – Depreciation for tax purposes	£6,340 – £4,500	£1,840
Deferred tax balance = Temporary difference balance × Corporate tax rate	£1,840 × 25%	£460

CFA Level I

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

Section 5.2

"Income Taxes," Elbie Antonites and Michael A. Broihahn

Sections 2.2, 4

66. Correct answer: A.

A company must disclose separate information about any operating segment which meets certain quantitative criteria—namely, the segment constitutes 10 percent or more of the combined operating segments' revenue, assets, or profit. (For purposes of determining whether a segment constitutes 10 percent or more of combined profits or losses, the criteria is expressed in terms of the absolute value of the segment's profit or loss as a percentage of the greater of (i) the combined profits of all profitable segments and (ii) the absolute amount of the combined losses of all loss-making segments.)

CFA Level I

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

Section 7.1

67. Correct answer: A.

(millions)	Accounting Purposes	Tax Purposes
Revaluation surplus	(£10,000 – £6,800) = £3,200	No revaluation allowed
Depreciation, straight line	20 years	5 years remaining
Start of year balance after revaluation, 2013	£10,000	£5,000
Depreciation, 2013	(£10,000/20 years) = £500	£1,000
Net balance, end of 2013	£9,500	£4,000
Minus revaluation surplus	– £3,200	_____
Carrying value for purposes of deferred taxes	£6,300	£4,000
Deferred tax liability = 0.30 × (£6,300 – £4,000) = £690		
Only the portion of the difference between the tax base and the carrying amount that is not the result of the revaluation is recognized as giving rise to a deferred tax liability. The portion arising from the revaluation surplus is used to reduce the revaluation surplus in equity.		

CFA Level I

"Income Taxes," Elbie Antonites and Michael A. Broihahn

Sections 2.2, 6.2

68. Correct answer: C.

The higher the current ratio, the more liquid the company. Thus, with a current ratio of 2.6 (1,800/700), the company is less liquid than the industry, which has a current ratio of 3.2.

Current ratio = Current assets/Current liabilities.

Current Assets	£thousands		Current Liabilities	£thousands
Cash	200		Accounts payable	300
Accounts receivable	350		Taxes payable	200
Inventory	1,250		Loan payable, first installment	200
Total	1,800		Total	700

CFA Level I

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

Section 7.2

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

Section 4.3

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

Sections 2.2

Questions 69~76 Relate to Corporate finance

69. Correct answer: B.

$$\text{Operating breakeven point}=\frac{\text{Fixed operating cost}}{\text{price-variable cost per unit}}=\frac{12,000}{12}=1,000$$

CFA Level I

"Measures of leverage"

70. Correct answer: A.

Breakeven quantity of sales,

$$Q_{BE} = \frac{F+C}{P-V}$$

= (€50 million + €30 million) ÷ (€85 - €65) = 4.0 million units.

CFA Level I

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

Section 3.6

71. Correct answer: A.

$$\text{Cost of trade credit} = \left(1+\frac{\text{Discount}}{(1-\text{Discount})}\right)^{(365/\text{Number of days beyond discount period})}-1$$

$$\text{Cost of trade credit} = \left(1+\frac{3\%}{(1-3\%)}\right)^{(365/30)}-1 = 44.9\%$$

CFA Level I

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

Section 7.1

72. Correct answer: A.

A reduction in inventory will increase the inventory turnover (Cost of goods sold/Average inventory), which means that the days in inventory will be reduced (365/Inventory turnover). This will lead to a reduction in the cash conversion cycle (also called net operating cycle). Cash conversion cycle consists of number of days of inventory and number of days of receivables minus number of days of payables.

CFA Level I

“Financial Analysis Techniques,” Thomas R. Robinson, Jan Hendrik van Greuning, Elaine Henry, and Michael A. Broihahn

Section 4.3.2

“Working Capital Management,” Edgar A. Norton, Jr., Kenneth L. Parkinson, and Pamela Peterson Drake

Section 2.2

73. Correct answer: C.

Based on the following equation:

$$\text{DTL} = \frac{\text{Quantity} \times (\text{Price} - \text{Variable cost})}{[\text{Quantity} \times (\text{Price} - \text{Variable cost}) - \text{Fixed costs} - \text{Financing costs}]}$$

the change to accelerated depreciation increases the fixed costs, thus making DTL increase (i.e., the numerator does not change and the denominator decreases).

CFA Level I

“Measures of Leverage,” Pamela Peterson Drake, Raj Aggarwal, Cynthia Harrington, and Adam Kobor

Section 3.5

74. Correct answer: C.

Sales risk is associated with uncertainty with respect to total revenue, which, in turn, depends on price and units sold.

CFA Level I

“Measures of Leverage,” Pamela Peterson Drake, Raj Aggarwal, Cynthia Harrington, and Adam Kobor

Section 3.1, 3.2

75. Correct answer: C.

$$DFL = \frac{EBIT}{EBIT - I\text{nterest}} = \frac{3.6}{3.6\text{-}1.2} = 1.5$$

CFA Level I

“Measures of leverage”

76. Correct answer: A.

In a Dutch auction, the company stipulates a range of acceptable prices. Shareholders indicate how many shares they will tender at the various prices.

CFA Level I

“Dividends and Share Repurchases: Basics,” George H. Troughton and Gregory Noronha

Section 4.1

Questions 77~88 Relate to Equity investment

77. Correct answer: A.

Companies pursuing cost leadership must be able to invest in productivity-improving capital equipment in order to be low-cost producers and maintain efficient operating systems.

CFA Level I

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

Section 6

78. Correct answer: B.

Net profit margin = Net earnings/Sales

Net earnings = Net profit margin × Sales;

Dividends per share (Dn) = (Net earnings × Payout ratio)/Number of outstanding shares;

Therefore, D1 = ($180 million × 0.15 × 0.60)/8.1 million = $2.00

D2 = $2.00(1 + 0.25) = $2.50

D3 = $2.00(1 + 0.25)2 = $3.13

D4 = $2.00(1 + 0.25)2 (1 + 0.05) = $3.28

$$V3 = \frac{\$3.28}{(0.12 - 0.05)} = \$46.68$$

$$v_0 = \frac{\$2.00}{(1 + 0.12)} + \frac{\$2.50}{(1 + 0.12)^2} + \frac{\$3.13}{(1 + 0.12)^3} + \frac{\$46.86}{(1 + 0.12)^3} = \$39.36$$

CFA Level I

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

Section 4.3

79. Correct answer: B.

Share buyback reduces equity, holding other factors (e.g., earnings) constant, thus return on equity will be higher.

CFA Level I

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

Greuning

Sections 4.5.2, 6.2

“Introduction to Industry and Company Analysis,” Patrick W. Dorsey, Anthony M. Fiore, and Ian Rossa O’Reilly

Section 6.1

80. Correct answer: B.

Operationally efficient markets are liquid markets in which the costs of arranging trades, commissions, bid–ask spreads, and order price impacts, are low.

CFA Level I

“Market Organization and Structure,” Larry Harris

Section 9

81. Correct answer: C.

The put option feature facilitates raising capital because the shares are more appealing to investors. As such, it provides a benefit to the issuing company. It also helps investors limit their potential losses because they can sell the shares back to the issuing company if the market price falls below the pre-specified put price. Therefore, putable common shares are beneficial to both the issuing company and the investors.

CFA Level I

“Overview of Equity Securities,” Ryan C. Fuhrmann and Asjeet S. Lamba

Section 3

82. Correct answer: B.

In an efficient market, market participants will process available information and those with opposite views will trade among each other until securities market prices fully reflect their fundamental values. An efficient market is thus a market in which asset prices reflect all past and present information.

CFA Level I

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

Section 2.1

83. Correct answer: C.

Market indices are used as model portfolios for index funds and exchange-traded funds, but they are not useful as model portfolios for active funds.

CFA Level I

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

Section 4

84. Correct answer: A.

Because regulated markets are more informationally efficient, there are fewer arbitrage opportunities.

CFA Level I

"Market Organization and Structure," Larry Harris

Section 10

85. Correct answer: A.

Cumulative voting allows shareholders to direct their total voting rights to specific candidates, as opposed to having to allocate their voting rights evenly among all candidates. Thus, applying all of the votes to one candidate provides the opportunity for a higher level of representation on the board than would be allowed under statutory voting.

CFA Level I

“The Corporate Governance of Listed Companies: A Manual for Investors,” Kurt Schacht, James C. Allen, and Matthew Orsagh

Section: Shareowner Voting

“Overview of Equity Securities,” Ryan C. Fuhrmann and Asjeet S. Lamba

Section 3.1

86. Correct answer: B.

If markets are semi-strong-form efficient (which also encompasses weak-form efficiency), the role of a portfolio manager is not necessarily to beat the market, but rather to establish and manage a portfolio consistent with the portfolio's objectives, with appropriate diversification and asset allocation, while taking into consideration the risk preferences and tax situation of the investor.

CFA Level I

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

Section 3.4.3

87. Correct answer: C.

Putable preference shares are less risky than their callable counterparts. They give the investor the option to put the shares back to the company. Because of the lower risk, they will provide a lower expected rate of return. Common shares are the most risky, whether or not they are dividend paying, and are likely to offer the highest expected return.

CFA Level I

"Overview of Equity Securities," Ryan C. Fuhrmann and Asjeet S. Lamba

Section 6.2

88. Correct answer: A.

Companies with large amounts of undervalued assets (which can be sold to reduce debt) that generate high levels of cash flow (which are used to make interest and principal payments on the debt) are likely candidates for MBO transactions.

CFA Level I

"Overview of Equity Securities," Ryan C. Fuhrmann and Asjeet S. Lamba

Section 4

Questions 89~94 Relate to Derivatives

89. Correct answer: A.

The pricing of forwards and futures will differ if futures prices and interest rates are negatively correlated. A negative correlation between futures prices and interest rates makes forwards more desirable than futures in the long position.

CFA Level I

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

Section 3.2

90. Correct answer: A.

American call prices can differ from European call prices only if the underlying stock is dividend paying. In the absence of such cash payments, European and American call options have the same value.

CFA Level I

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

Section 4.3

91. Correct answer: B.

A swap is a series of forward payments. Specifically, a swap is an agreement between two parties to exchange a series of future cash flows. The corporation receives fixed interest rate payments and makes variable interest rate payments. Given that the contract is for one year and the floating rate is based on three-month LIBOR, at least four payments will be made during the year.

CFA Level I

“Derivative Markets and Instruments,” Don M. Chance

Section 4.1

92. Correct answer: B.

If futures prices and interest rates are uncorrelated, the prices of forwards and futures will be identical.

CFA Level I

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

Section 3.2

93. Correct answer: C.

Derivative markets are not necessarily more or less volatile than spot markets. Derivative markets reveal prices and volatilities of the underlying assets and facilitate risk management.

CFA Level I

"Derivative Markets and Instruments," Don M. Chance

Section 5

94. Correct answer: C.

Only deep-in-the-money put options may be exercised early. The price cannot fall below zero and thus the additional upside of such an option is limited.

CFA Level I

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

Section 4.3

Questions 95~106 Relate to Fixed-income Analysis

95. Correct answer: B.

The company's interest coverage ratio can be computed as: EBITDA/Interest expense. That is:

	20X1	20X2
EBITDA	125.0	170.0
Interest expense	30.0	38.0
EBITDA/Interest expense	4.17	4.47

EBITDA = Operating profit + Depreciation and amortization

The company's EBITDA interest coverage ratio has improved over this period. If EBIT is used to calculate the coverage ratios you reach the same conclusion, for 20X1 the ratio is 3.33 and for 20X2 it is 3.86.

CFA Level I

“Fundamentals of Credit Analysis”, Christopher L. Gootkind

Section 5.2.1

96. Correct answer: A.

An FRN with a floor on the coupon rate prevents the coupon rate from falling below a prespecified minimum rate.

CFA Level I

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

Section 4.2

97. Correct answer: C.

A call provision gives the issuer the right to redeem all or part of the bond before the specified maturity date to protect the issuer against a decline in interest rates. Therefore, it benefits the issuer and provides a lower future funding cost.

CFA Level 1

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

Section 5

98. Correct answer: A.

A security with a present value of 96.47, 19 interest payments of 8, and a 20th payment of principal plus interest (108) has a yield to maturity of 8.37%.

CFA Level 1

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

Section 3

99. Correct answer: C.

If the discount rate increases to 7.5% from 6.5%, the price of a bond decreases. At a discount rate of 7.5%, the bond sells at a discount to face value. As a discount bond approaches maturity, it will increase in price over time until it reaches par at maturity.

CFA Level I

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

Section 2.3

100. Correct answer: B.

The price of the commercial paper per 100 of par value is: $PV = FV \times \left(1 - \frac{Days}{year} \times DR\right)$

where PV and FV are the price and face value of the money market instrument, Days is the number of days between settlement and maturity, Year is number of days in the year, and DR is the discount rate stated as an annual percentage.

So, $PV = 100 \times \left(1 - \frac{90}{360} \times 0.0475\right) = 98.8125$ The bond equivalent yield is,

$AOR = \frac{Year}{Days} \times \left(\frac{FV - PV}{PV}\right)$ So, $AOR = \frac{365}{90} \times \left(\frac{100 - 98.8125}{98.8125}\right) = 4.874\%$

CFA Level 1

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

Section 3.5

101. Correct answer: A.

A sinking fund arrangement is a way to reduce credit risk by making the issuer set aside funds over time to retire the bond issue.

CFA Level 1

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

Section 6.3.3

102. Correct answer: C.

The yield to maturity (r) is computed by solving for r in the following equation:

87.00 = 8/(1 + r)5 + 8/(1 + r)6 + 8/(1 + r)7 + 8/(1 + r)8 + 8/(1 + r)9 + 108/(1 + r)10, which gives a yield to maturity of 6.0%.

CFA Level 1

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

103. Correct answer: A.

Balloon risk is the risk that the borrower will not be able to arrange for refinancing or sell the property to make the balloon payment typically associated with commercial loans backing CMBS. As a result, the CMBS may extend in maturity implying that balloon risk is a type of extension risk.

CFA Level I

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

Section 6.2.2

104. Correct answer: C.

In a mortgage pass-through security the pass-through rate is less than the mortgage rate on the underlying pool of mortgages by an amount equal to the servicing (and other administrative) fees.

CFA Level I

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

Section 5.1.1

105. Correct answer: A.

The value of the bond is

$$\frac{2.5}{(1+0.12/2)}+\frac{2.5}{(1+0.12/2)\times(1+0.18/2)}$$
$$+\frac{2.5}{(1+0.12/2)\times(1+0.18/2)\times(1+0.23/2)}$$
$$+\frac{2.5}{(1+0.12/2)\times(1+0.18/2)\times(1+0.23/2)\times(1+0.27/2)}$$
$$+\frac{2.5}{(1+0.12/2)\times(1+0.18/2)\times(1+0.23/2)\times(1+0.27/2)\times(1+0.30/2)}$$
$$=\$106.83$$

CFA Level I

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

Section 4

106. Correct answer: C.

The market values of the bonds (Price × Par amount) are $17,479,376, $4,018,928, and $6,771,416, respectively, for a portfolio value of $28,269,720. Therefore, the duration of the portfolio is

$$\left(\frac{17,479,376}{28,269,720}\times 8.56\right)+\left(\frac{4,018,928}{28,269,720}\times 9.19\right)+\left(\frac{6,771,416}{28,269,720}\times 11.48\right)=9.35$$

CFA Level I

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

Section 3.4

Questions 107~110 Relate to Alternative Investments

107. Correct answer: A.

When a commodity market is in contango, futures prices are higher than spot prices. When spot prices are higher than the futures price, the market is said to be in backwardation.

CFA Level I

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

Section 6.4.1

108. Correct answer: B.

The Sharpe ratio and the safety-first measure use standard deviation as the measure of risk, which ignore the negative skewness in returns. The Sortino ratio uses the downside deviation as the measure of risk, which will reflect negative skewness if present.

CFA Level I

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

Section 9.2

109. Correct answer: B.

The exclusion of returns of funds that have been liquidated is called survivorship bias. It is most likely that only poor performers are eliminated and thus reported returns are artificially inflated.

CFA Level I

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

Section 2

110. Correct answer: A.

The historical standard deviations of annual return for venture capital are higher than that of common stocks. Investors should therefore require a higher return in exchange for accepting this higher risk, along with the illiquidity of venture capital investing.

CFA Level I

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

Section 4.3

Questions 111 ~120 Relate to Portfolio Management

111. Correct answer: B.

Although the client owns a successful business and has a high income, she exhibits above-average risk aversion, indicating that her ability to take risk is high but her willingness to take risk is low.

CFA Level I

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

Section 2.2

112. Correct answer: A.

One of the assumptions of the CAPM is that investors plan for the same single holding period.

CFA Level I

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

Section 4.1

113. Correct answer: A.

Jensen's alpha = 0.12 – [0.027 + 1.5(0.075 – 0.027)] = 0.021, or 2.10%.

CFA Level I

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

Section 4.3.2

114. Correct answer: A.

The execution step of the portfolio management process has three parts: asset allocation, security analysis, and portfolio construction.

CFA Level I

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

Section 4

115. Correct answer: C.

The optimal portfolio is identified as the point at which the capital allocation line (CAL) is tangential to the investor's indifference curve. As investor risk aversion increases, the optimal portfolio slides down the CAL to a point of lower expected risk and lower expected return.

CFA Level I

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

Section 3.3

116. Correct answer: C.

The increase in return with every unit increase in risk keeps decreasing as one moves from left to right because the slope of the efficient frontier continues to decrease. Thus, investors obtain decreasing increases in returns as they assume more risk.

CFA Level I

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

Section 5.2

117. Correct answer: A.

An individual's ability to take risk is affected by such factors as time horizon and expected income. Personality type is most likely to affect an individual's willingness to take risk.

CFA Level I

"Basics of Portfolio Management and Construction," Alistair Byrne and Frank E. Smudde

Section 2.2.1

118. Correct answer: B.

The covariance is calculated from the standard deviations of the two assets and their correlation. The portfolio weights are not relevant.

CFA Level I

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

Section 4.1.3

119. Correct answer: C.

$$\beta_{JKU} = \rho_{JKU,M} \times \sigma_{JKU} / S_M = 0.75 \times 0.2 / 0.15 = 1.0$$

and $E(RJKU) = RFR + \beta_{JKU} \times (R_M - R_{FR}) = 0.05 + 1 \times (0.12 - 0.05) = 0.12$

The required rate of return of JKU is 12%, and the expected return of JKU is 15%. Therefore, JKU is undervalued relative to the security market line (SML); the risk–return relationship lies above the SML.

CFA Level I

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

Section 4

120. Correct answer: A.

The standard deviation of a two asset portfolio is calculated as follows:

$$\sigma_P = \sqrt{W_1^2\sigma_1^2 + W_2^2\sigma_2^2 + 2W_1W_2\sigma_1\sigma_2 Cov(R_{1,}R_2)}$$

CFA Level I

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

Section 2.3.3