2019 Level I Mock Exam (C) PM

The afternoon session of the 2019 Level I Chartered Financial Analyst® Mock Examination has 120 questions. To best simulate the exam day experience, candidates are advised to allocate an average of one and a half minutes per question for a total of 180 minutes (3 hours) for this session of the exam.

Questions	Topic	Minutes
1–19	Ethical and Professional Standards	28.5
20–31	Quantitative Methods	18
32–43	Economics	18
44–61	Financial Reporting and Analysis	27
62–73	Corporate Finance	18
74–80	Portfolio Management	10.5
81–93	Equity	19.5
94–106	Fixed Income	19.5
107–113	Derivatives	10.5
114–120	Alternative Investments	10.5
	Total:	**180**

2019 LEVEL I MOCK EXAM (C) PM

1 Which of the following statements *most likely* reflects one of the six components of the CFA Code of Ethics? Candidates must:

A place the integrity of the investment profession above their own interests.

B promote the viability of the global capital markets for their employer's benefit.

C ignore unprofessional conduct displayed by others within the profession.

A is correct. CFA charterholders and candidates must place the integrity of the investment profession and the interests of clients above their own personal interests.

B is incorrect. CFA charterholders and candidates must promote the integrity and viability of the global capital markets for the ultimate benefit of society.

C is incorrect. Charterholders and candidates must practice and encourage others to participate in a professional and ethical manner that will reflect credit on themselves and the profession. By ignoring unprofessional conduct of others, a member or candidate is not encouraging others to behave in a manner that reflects well on the profession.

Code of Ethics and Standards of Professional Conduct

LOS b

2 Tamlorn Mager, CFA, is an analyst at Pyallup Portfolio Management. CFA Institute recently notified Mager that his CFA Institute membership was suspended for a year because he violated the CFA Code. A hearing panel also came to the same conclusion. Mager subsequently notified CFA Institute that he does not accept the sanction or the hearing panel's conclusion. Which of the following actions by Mager is *most* consistent with the CFA Institute Standards of Professional Conduct Program?

A Presenting himself to the public as a CFA charterholder.

B Providing evidence for his position to an outside arbitration panel.

C Using his CFA designation upon expiration of the suspension period.

C is correct because the Designated Officer may impose a summary suspension on a member or candidate, which may be rejected or accepted by the member or candidate. If the member or candidate does not accept the proposed sanction, the matter is referred to a hearing panel composed of DRC members and CFA Institute member volunteers affiliated with the DRC. In this case, the hearing panel also affirmed the suspension decision by the Designated Officer and therefore the member loses the right to use his designation for a one-year period. Upon expiration of the suspension period, the analyst would be able to use his CFA designation.

A is incorrect because even though the member or candidate does not accept the proposed sanction, the hearing panel review process has affirmed the original disciplinary action, so the member loses the right to use his designation for a one-year period. The analyst would not be able to continue use of his CFA designation because he disagrees with the sanction.

B is incorrect because all members agree to abide by the CFA Institute Code and Standards, and there is no process for adjudication by an outside arbitration panel.

Code of Ethics and Standards of Professional Conduct

LOS a
Guidance for Standards I–VII
LOS c

3 Yip Wai Yin, a CFA candidate, is an independent mutual fund sales agent. For every front-end load product she promotes, Yip receives a portion of the front-end fee as commission at the time of sale. For every back-end load fund she sells, Yip receives a smaller commission paid at the end of the year. Yip always informs her clients that she is paid a commission as an agent, but does not provide details of the compensation structure. When pitching her favored front-end load product line she tells clients 20% of her commission is always invested in the same fund as proof of her confidence in the fund she recommends. Which CFA Code and Standards with regard to Conflicts of Interest does Yip *least likely* violate?

A Referral Fees.

B Disclosure of Conflicts.

C Priority of Transactions.

C is correct because Yip's investments do not adversely affect the interest of the clients and therefore do not violate the Priority of Transactions requirement. A candidate having the same investment positions does not always create a conflict of interest, and in some instances having an aligned investment portfolio can be beneficial to the client. By not detailing the commission structure to her clients, Yip does not disclose the potential reason for her favoring front-end load funds over back-end load as the commission is higher and is paid immediately rather than at the end of the year and is in violation of Standard VI(A)–Disclosure of Conflicts. Yip also does not disclose the commission structure in detail, which could impair her independence when recommending front-load mutual funds rather than back-end load mutual funds to her clients, a violation of Standard VI(C)–Referral Fees.

A is incorrect because by not detailing the commission structure to her clients, Yip does not disclose the potential reason for her favoring front-end load funds over back-end load as the commission is higher and is paid immediately, rather than at the end of the year.

B is incorrect because Yip does not disclose the commission structure in detail, which could impair her independence when recommending front-load mutual funds rather than back-end load mutual funds to her clients.

Guidance for Standards I–VII
LOS a
Standard VI(A)–Disclosure of Conflicts, Standard VI(B)–Priority of Transactions, Standard VI(C)–Referral Fees

4 Lewis McChord, CFA, a research analyst at an investment bank, covers the auto industry. McChord recently read a report on an auto manufacturing company written by Pierce Brown. Brown's report provided extensive coverage of the company's newly launched products indicating that sales volume, not yet publicly available, would raise future profits. Intrigued by the report, McChord called a senior executive at the company whom she has known personally for years. The officer gave her specific details on new vehicle sales, indicating that profits would double in the current quarter. McChord added this data to Brown's report and then circulated it within her firm as her own report. McChord *least likely* violated which of the following CFA Institute Standards of Professional Conduct?

A Misrepresentation
B Preservation of Confidentiality
C Material Nonpublic Information

B is correct because Standard III(E)–Preservation of Confidentiality has not been violated. The analyst has a personal relationship with the officer of the auto company, and he is not a current, former, or prospective client, so there is no obligation for the analyst to maintain client confidentiality. However, the analyst did violate Standard I(C)–Misrepresentation when she represented another analyst's work as her own. In addition, the analyst also violated Standard II(A)–Material Nonpublic Information by including data that were material and nonpublic in her research report on sales figures.

A is incorrect because Standard I(C)–Misrepresentation was violated by the analyst when she represented another analysts research report as her own.

C is incorrect because Standard II(A)–Material Nonpublic Information was violated when the analyst included data that were material and nonpublic in the research report on sales figures.

Guidance for Standards I–VII

LOS a

Standard I(C)–Misrepresentation, Standard II(A)–Material Nonpublic Information, Standard III(E)–Preservation of Confidentiality

5 Abe Seneca, CFA, supervises a team of analysts who create index funds for institutional investors. When Seneca makes sales demonstrations without his colleagues to potential clients simulating the fund's performance, the scenarios he prepares show outcomes based on assumptions reflecting upside bias and positive risk assessments. Gail Tremblay, CFA, an analyst in Seneca's group, observes that the actual performance of these index funds is less than indicated in the scenario outcomes shown in the sales meetings. Seneca *least likely* violated which of the following CFA Institute Standards of Professional Conduct?

A Loyalty
B Performance Presentation
C Responsibilities of Supervisors

C is correct because Standard IV(C)–Responsibilities of Supervisors has not been violated as Seneca is not responsible for the supervision of any employees when he makes sales demonstrations to clients because he prepared the material himself. Seneca violated Standard IV(A)–Loyalty by misleading potential investors on the performance they might achieve with the index funds, thereby causing reputational risk to his employer. Seneca has also violated Standard III(D)–Performance Presentation because the sales demonstrations he conducts do not provide a fair and accurate representation of performance clients are likely to experience.

A is incorrect because Seneca understates risks and only includes positive assumptions in his sales presentations in order to achieve higher simulated performance. This is a violation of Standard IV(A)–Loyalty because he is causing reputational risk to his employer by misleading potential investors on the performance they might achieve with the index funds. Standard IV(A) requires members and candidates to protect the interests of their firm by refraining from any conduct that would injure the firm.

B is incorrect because Seneca has violated Standard III(D)–Performance Presentation because the sales demonstrations he conducts do not provide a fair and accurate representation of performance clients are likely to experience.

Guidance for Standards I–VII

LOS a

Standard III(D)–Performance Presentation, Standard IV(A)–Loyalty, Standard IV(C)–Responsibilities of Supervisors

6 Eileen Fisher, CFA, has been a supervisory analyst at SL Advisors for the past ten years. Recently, one of her analysts was found to be in violation of the CFA Institute Standards of Professional Conduct. Fisher has placed limits on the analyst's activities and is now monitoring all of his investment activities. Although SL did not have any compliance procedures up to this point, to avoid future violations, Fischer has put in place procedures exceeding industry standards. Did Fisher *most likely* violate any CFA Institute Standards of Professional Conduct?

A Yes.

B No, because she has taken steps to ensure the violations will not be repeated by the analyst.

C No, because she is taking steps to implement compliance procedures that are more than adequate.

A is correct because under standard IV(C) a member should exercise reasonable supervision by establishing and implementing compliance procedures prior to the possibility of any violation occurring, which has not been done in this case.

B is a correct action but does not address the standard violation. These actions are intended to restrict activities after the violation and do not relate to investigating why or how the violation occurred, which would be necessary to establish and implement adequate compliance procedures.

C is a correct action but the steps were taken after the fact and procedures should have been in place previously.

Guidance for Standards I–VII

LOS b

Standard IV(C)–Responsibilities of Supervisors

7 Elbie Botha, CFA, an equity research analyst at an investment bank, disagrees with her research team's buy recommendation for a particular company's rights issue. She acknowledges that the recommendation is based on a well-developed process and extensive research but feels the valuation is overpriced based on her assumptions. Despite her contrarian view, her name is included on the research report to be distributed to all of the investment bank's clients. To avoid violating any CFA Institute Standards, it would be *least* appropriate for Botha to undertake which of the following?

A Leave her name on the report.

B Insist her name is removed from the report.

C Issue a new report based on her conclusions.

C is correct as Standard IV(A) calls for employees to be loyal to their employer by not causing harm. If Botha released a contradictory research recommendation report to clients, it could possibly cause confusion amongst clients and embarrassment to the firm.

A is incorrect as Botha does not need to disassociate from the research report even though she does not agree with the conclusion made as she acknowledges the process was sound.

B is incorrect. While Botha does not need to disassociate from the research report, she could still ask for her name to be removed from the report without violating any Standard.

Guidance for Standards I–VII

LOS b

8 Colleen O'Neil, CFA, manages a private investment fund with a balanced global investment mandate. Her clients insist that her personal investment portfolio replicate the investments within their portfolio to ensure them that she is willing to put her money at risk. By undertaking which of the following simultaneous investment actions for her own portfolio would O'Neil *most likely* be in violation of Standard VI(B)–Priority of Transactions?

A Sale of a listed US blue chip value stock.

B Participation in a popular frontier market IPO.

C Purchase of a UK government bond in the primary market.

B is correct because Standard VI(B)–Priority of Transactions dictates that members and candidates give their clients and employer priority when making personal investment transactions. Even when clients allow or insist the manager invest alongside them, the manager's transactions must never adversely affect the interests of the clients. A popular or "hot" IPO in a frontier market is likely to be oversubscribed. In such cases, Standard VI(B) dictates that the manager should not participate in this event to better ensure that clients would have a higher probability of getting their full subscription allotment, even though clients have allowed or dictated she do so.

A is incorrect because the clients are unlikely be harmed by the manager also selling a US blue chip value stock in a stable market as the liquidity of the stock is likely to be large enough that a simultaneous sale would not negatively impact on the price of the share.

C is incorrect because the volume of UK government bonds offered through a primary market is likely to be large and at a fixed price based on the auction outcome. O'Neil's bid would, however, need to be the same as her clients' bids.

Guidance for Standards I–VII

LOS b

9 Tammi Holmberg is enrolled to take the Level I CFA examination. While taking the CFA examination, the candidate on Holmberg's immediate right takes a stretch break and a piece of paper from his pocket falls onto Holmberg's desk. Holmberg glances at the paper and realizes there is information written on the paper, which includes a formula Holmberg needs for the question she is working on. Holmberg had not memorized this formula and could not complete the question without this information. Holmberg pushes the paper off her desk and uses the formula to complete the question. According to the CFA Institute Code of Ethics and Standards of Professional Conduct, Holmberg *most likely*:

A compromised her exam.

B was free to act on the information that fell on her desk.

C is responsible for notifying exam proctors of her neighbor's violation.

A is correct because Holmberg's conduct compromised the validity of her exam and violated Standard VII(A). Her conduct was also a violation of the rules and regulations of the CFA Program, the Candidate pledge, and the CFA Institute Code and Standards.

B is incorrect because Holmberg was not free to use the information and her conduct compromised the validity of her exam and violated Standard VII(A). Her conduct was also a violation of the rules and regulations of the CFA Program and the Candidate pledge, and the CFA Institute Code and Standards.

C is incorrect because Holmberg has an obligation to report her violation but does not have an obligation to report potential violations of the Code and Standards by fellow members, even though CFA Institute encourages such action.

Guidance for Standards I–VII

LOS b

Standard VII(A)–Conduct as Participants in CFA Institute Programs

10 Praful Chandarana, CFA, is starting a new business to offer investment consulting services to pension fund trustees in response to a new regulation that requires all pension fund Investment Policy Statements (IPS) to be reviewed and approved by an independent CFA charterholder. Prior to starting the new business, he meets with the pension fund regulator to clarify if the CFA charterholder undertaking the IPS review should be a licensed financial advisor by the capital markets regulator. The capital markets regulator requires and grants licenses to those giving investment advice to clients. The pension regulator states that they do not require the CFA charterholder to hold a financial advisor's license, despite financial-related advice being given to the pension funds during any IPS review. Chandarana therefore starts his new business to undertake IPS reviews without obtaining a financial advisor's license from the capital markets regulator. Subsequently, when clients of his former employer contact him he informs them of his new company and the services he offers. Does Chandarana *most likely* violate the CFA Code and Standards?

A No.

B Yes, with regard to Professionalism.

C Yes, with regard to Duties to Employer.

B is correct because the CFA Code of Ethics requires Chandarana to uphold the rules governing financial advisors. However, he failed to do so in the absence of obtaining a financial advisor's license. The CFA Standard I(A)–Knowledge of the Law states that when rules or regulations are in conflict, members must comply with the more strict law, in this case the requirement for financial advisors to be licensed. Chandarana is not restricted from speaking with clients of his old employer by [Duties to Employer Standard IV(A)_Loyalty].

A is incorrect because Chandarana failed to obtain a financial advisor's license. The CFA Code of Ethics requires Chandarana to uphold the rules governing capital markets. The CFA Standard I(A)–Knowledge of the Law states that when rules or regulations are in conflict, members must comply with the more strict law, in this case the requirement for financial advisors to be licensed.

C is incorrect because Chandarana is not restricted from speaking with clients of his old employer by [Duties to Employer Standard IV(A)_Loyalty]. Chandarana did not contact the old employer's clients; they contacted him. He did not use the old employer's contact list. In addition, he is able to inform the clients of his new business after he has left the service of his old employer.

Guidance for Standards I–VII

LOS b

Standard I(A)–Knowledge of the Law, [Standard IV(A)_Loyalty]

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11 At the conclusion of the afternoon section of the Level I CFA examination, the exam proctor instructs all candidates to stop writing and put their pencils down immediately. Krishna Chowdary sees other candidates in front of him continue to fill in their answer sheets. Chowdary has two questions left to complete so he randomly fills in one of the ovals on his answer sheet before putting his pencil down on the table. Did Chowdary's actions *most likely* violate the CFA Institute Code of Ethics and Standards of Professional Conduct?

A Yes.

B No, because other candidates continued writing.

C No, because he randomly answered one question.

A is correct because by completing a question on his examination after time was called, Chowdary violated Standard VII(A)–Conduct as Members and Candidates in the CFA Program. By continuing to write, Chowdary took advantage of other candidates, and his conduct compromised the validity of his exam performance.

B is incorrect because Chowdary violated Standard VII(A) by working on his examination after time was called.

C is incorrect because Chowdary violated Standard VII(A) by working on his examination after time was called.

Guidance for Standards I–VII

LOS b

Standard VII(A)–Conduct as Participants in CFA Institute Programs

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12 Upon receiving notification that he passed his Level III CFA exam, Paulo Garcia updates his educational background on his social media site by adding "completed the CFA course." Does Garcia *most likely* violate the CFA Institute Standards of Professional Conduct?

A No.

B Yes, because it could imply he has obtained the charter.

C Yes, because he doesn't describe the certification process.

B is correct because Standard VII(B)–Reference to CFA Institute, the CFA Designation, and the CFA Program forbids candidates to imply that they have a partial designation or cite an expected completion date of any level of the CFA Program. Final award of the Charter is subject to meeting the CFA Program requirements and approval by the CFA Institute Board of Governors. Garcia should state, "passed Level III CFA exam" or "passed all three levels of the CFA exams". By stating that he "passed the CFA Course" it could be taken to mean he obtained his Charter, which is incorrect.

A is incorrect because Garcia violates Standard VII(B)–by implying he has obtained the CFA Charter, when he has not.

C is incorrect because describing the process is not required by the Standards.

Guidance for Standards I–VII

LOS b

Standard VII(B)–Reference to CFA Institute, the CFA Designation, and the CFA Program

13 Jackson Barnes, CFA, works for an insurance company providing financial planning services to clients for a fee. Barnes has developed a network of specialists, including accountants, lawyers, and brokers, who contribute their expertise to the financial planning process. Each of the specialists is an independent contractor. Each contractor bills Barnes separately for the work he or she performs, providing a discount based upon the number of clients Barnes has referred. What steps should Barnes take to be consistent with the CFA Institute Standards of Professional Conduct?

A Have his independent contractors approved by the insurance company

B List the consideration he receives from the specialists on monthly client invoices

C Inform potential clients about his arrangement with the contractors before they agree to hire him

C is correct because the referral arrangements should be disclosed to potential clients "before entry into any formal agreement for services" and not after the fact. This allows potential clients to consider whether the arrangement causes them any potential harm as a result of the arrangement (e.g., higher fees and potential conflicts of interests).

A is incorrect as Standard VI(C)–Referral Fees specifically requires referral arrangements be disclosed to clients so this step should be taken regardless of any other additional actions.

B is incorrect as the referral arrangements should be disclosed to clients before entry into any formal agreement for services and not after the fact, which would be the case with the disclosure being provided on the bills sent out in arrears.

Guidance for Standards I–VII

LOS c

14 Linda Chin, CFA, is a member of a political group advocating lower governmental regulation in all aspects of life. She works in a country where local securities laws are minimal and insider trading is not prohibited. Chin's politics are reflected in her investment strategy where she follows her country's mandatory legal and regulatory requirements. Which of the following actions by Chin is *most* consistent with the CFA Institute Standards of Professional Conduct?

A Follow the CFA Code and Standards.

B Continue her current investment strategy.

C Disclose her political advocacy to clients.

A is correct because Standard I(A)–Knowledge of the Law requires Members and Candidates to comply with the more strict law, rules, or regulations and follow the highest requirement, which in this case would be the CFA Institute Standards of Professional

Conduct. Standard II(A)–Material Nonpublic Information would also apply as Members and Candidates who possess material nonpublic information that could affect the value of an investment must not act or cause others to act on the information. Disclosure that she meets local mandatory legal requirements, not the more strict law, rule, or regulation of the Code and Standards, would not alleviate the member from following the Code and Standards.

B is incorrect because Standard I(A)–Knowledge of the Law requires Members and Candidates to not trade on material nonpublic information. Standard II(A)–Material Nonpublic Information would also apply as Members and Candidates who possess material nonpublic information that could affect the value of an investment must not act or cause others to act on the information.

C is incorrect because Standard I(A)–Knowledge of the Law requires Members and Candidates to comply with the more strict law, rule, or regulation, which in this case is the Code and Standards and not local requirements. Disclosure of the manager's political advocacy is not required because it does not entail a conflict of interest and doing so would not alleviate the member from following the Code and Standards.

Guidance for Standards I–VII

LOS c

Standard I(A)–Knowledge of the Law, Standard II(A)–Material Nonpublic Information

15 Priscilla Moab, CFA, is the director of marketing at Red Lantern Investments. Red's investment approach uses technical and fundamental analysis as well as portfolio construction to minimize risk. Moab plans to market an online investment newsletter to retail clients. Moab decides to let prospective clients have access to Red's buy and sell recommendation list by posting this information on a social media site. The posting also provides information on Red's basic investment process and logic. To avoid violating the CFA Institute Code of Ethics and Standards of Professional Conduct, Moab should *most likely*:

A describe the investment approach in detail.

B update investment process changes annually.

C indicate that additional information and analysis are available.

C is correct because if recommendations are contained in capsule form (such as a recommended stock list), members and candidates should notify clients that additional information and analysis are available from the producer of the report as required by Standard V(B)–Communication with Clients and Prospective Clients. In this case, a clear statement on the website that more information is available upon request would be required.

A is incorrect because Moab's plans for the social media recommendations do not violate Standard V(B)–Communication with Clients and Prospective Clients, so it does not need to describe the investment system in detail. The recommendation outlines the basic process and logic of Red's investment approach and is sufficient enough for clients to understand its limitations or inherent risks.

B is incorrect because according to Standard V(B)–Communication with Clients and Prospective Clients, the member or candidate must keep clients and other interested parties informed on an ongoing basis about changes to the investment process, and an annual update may not be sufficient.

Guidance for Standards I–VII

LOS c

Standard V(B)–Communication with Clients and Prospective Clients

16 The Global Investment Performance Standards (GIPS) *least likely* require:

A non-discretionary portfolios to be included in composites.

B non–fee-paying portfolios to be excluded in the returns of appropriate composites.

C composites to be defined according to similar investment objectives and/or strategies.

A is correct because composites must be defined according to similar investment objectives and/or strategies. Terminated portfolios must be included in the historical returns of appropriate composites while only fee-paying portfolios are to be included in composites. Non-discretionary portfolios must not be included in a firm's composites.

B is incorrect because only fee-paying portfolios are to be included in composites.

C is incorrect because composites are required to be made up of portfolios with similar investment objectives and/or strategies.

Introduction to the Global Investment Performance Standards (GIPS)

LOS b

17 CFA Institute support of a local country sponsor to drive the adoption of the GIPS standards seeks to:

A provide a link between the governing body and the local markets.

B promote the standards as mandatory.

C translate the standards into the local language for use as the official governing version.

A is correct. Country sponsors provide an important link between the GIPS Executive Committee, the governing body for the GIPS standards, and the local markets in which investment managers operate.

B is incorrect because the standards are promoted as voluntary.

C is incorrect because the official governing version of the standards is the English version and not the local language version.

The GIPS Standards

LOS c

18 Under what circumstances could a client possibly win a lawsuit against a financial adviser despite the financial adviser abiding by all regulatory and legal requirements?

A The adviser benefiting more from the relationship than the client

B The adviser not being subject to a code of ethics

C The adviser violating his employer's published code of ethics

C is correct. If the client could prove the firm marketed its code of ethics (i.e., putting the interests of the client first) as a reason to hire the firm and the adviser violated the code, the court may rule in the client's favor.

A is incorrect because an adviser can still act in a fiduciary manner while benefiting more than the client. This is particularly true when investment returns are unexpectedly negative and the client pays fees to the adviser.

B is incorrect because unethical behavior is not necessarily illegal. However, if the client could prove the firm marketed their code of ethics (i.e., putting the interests of the client first) as a reason to hire the firm and the adviser violated the code, the court may rule in the client's favor.

Ethics and Trust in the Investment Profession
LOS e
Section 6

19 Can an individual *most likely* cause the public to lose confidence in the global financial markets?

A Yes.

B No, a negative event would need to be considered systemic.

C No, a single person does not have enough influence.

A is correct. Any negative publicity regarding a financial sector employee can lead to the public losing market confidence and trust in the investment industry. Consequently, it is critical for individuals working in the financial services industry to act in an ethical manner. Without market confidence and trust in investment professionals, investors will remove their capital and the industry and economy will suffer.

B is incorrect. An individual can cause the loss of market confidence and trust in investment professionals.

C is incorrect because any negative publicity regarding a financial sector employee can lead to the public losing market confidence. Bernie Madolf is an example of a single person that caused the general public to lose trust of investment professionals.

Ethics and Trust in the Investment Profession
LOS d
Section 5

20 A stock's expected price movement over the next two periods is as follows:

Time = 0	Time = 1	Time = 2
S_0 = 80	S_u = 88	S_{uu} = 96.80
	S_d = 72	$S_{ud,du}$ = 79.20
		S_{dd} = 64.80

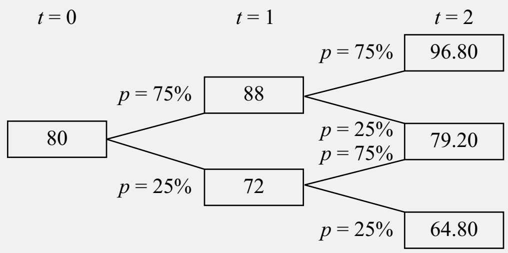
The initial value of the stock is \$80. The probability of an up move in any given period is 75%, and the probability of a down move in any given period is 25%. Using the binomial model, the probability that the stock's price will be \$79.20 at the end of two periods is *closest* to:

A 37.50%.

B 56.25%.

C 18.75%.

A is correct. Across two periods, there are four possibilities:



- *uu*: End Value: \$96.80
- *ud*: End Value: \$79.20
- *du*: End Value: \$79.20
- *dd*: End Value: \$64.80

where *u* is an up move and *d* is a down move.

The probability of an up move followed by a down move is $0.75 \times 0.25 = 0.1875$.

The probability of a down move followed by an up move is 0.25×0.75 also $= 0.1875$. Both of these sequences result in an end value of \$79.20.

Therefore, the probability of an end value of \$79.20 is $(0.1875 + 0.1875) =$ **37.5%.**

Alternatively, the following formula could be used:

$$p(x) = P(X = x) = \binom{n}{x} p^x (1-p)^{n-x} = \frac{n!}{(n-x)!x!} p^x (1-p)^{n-x} \text{ where}$$

$n = 2$ (number of periods)

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

$p = 0.75$ (probability of an up move)

$$p(1) = \binom{2}{1} 0.75^1 (1 - 0.75)^{2-1} = \frac{2!}{(2-1)!1!} \times 0.75^1 \times 0.25^{2-1} = 2 \times 0.75 \times 0.25 = 0.375$$

B is incorrect because it is the probability of an up move followed by an up move ($0.75 \times 0.75 = 0.5625$).

C is incorrect because it is does not recognize that there are two branches that end in \$79.20.

Common Probability Distributions

LOS f, g

Section 2.2

21 An equally weighted portfolio is composed of four stocks. An analyst knows the mean and variance for each of the four stocks. In order to estimate the portfolio mean and variance, the analyst will require the stocks':

A skewness.

B pairwise correlations.

C kurtosis.

B is correct. Specification of the mean and variance for a portfolio of four stocks requires estimates of the mean returns and variances for each of the four stocks and the pairwise correlations between each of the four stocks.

A is incorrect because skewness measures are not required to estimate the mean and variance of a portfolio.

C is incorrect because kurtosis measures are not required to estimate the mean and variance of a portfolio.

Common Probability Distributions

LOS j
Section 3.2

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22 If a stock's continuously compounded return is normally distributed, then the distribution of the future stock price is *best* described as being:

A normal.

B a Student's t.

C lognormal.

C is correct. If a stock's continuously compounded return is normally distributed, then the future stock price is necessarily lognormally distributed.

A is incorrect. If a stock's continuously compounded return is normally distributed, then future stock price is necessarily lognormally distributed.

B is incorrect. If a stock's continuously compounded return is normally distributed, then future stock price is necessarily lognormally distributed.

Common Probability Distributions
LOS n
Section 3.4

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

A 3.29%.

B 3.32%.

C 3.36%.

C is correct. The initial price (P_0) of the T-bill is calculated as follows:

$r_{BD} = (D/F) \times (360/t)$, $P_0 = 100 - D$where

r_{BD} = 0.0325 and is the annualized yield on a bank discount basis

F = 100 and is the face value of the T-bill

t = 90 and is the actual number of days remaining to maturity

D is the dollar discount: $0.0325 = (D/100) \times (360/90)$, $D = 0.8125$

$P_0 = 100 - 0.8125 = 99.1875$

The holding period yield (HPY) is calculated as follows (T-bills are pure discount instruments and do not pay coupons. P_t = 100 and is the price received for the T-bill at its maturity):

HPY = $(P_t - P_0)/P_0 = (100 - 99.1875)/99.1875 = 0.00819$

Finally, the HPY is converted into EAY:

EAY = $(1 + \text{HPY})^{365/t} - 1$

EAY = $(1 + 0.00819)^{365/90} - 1 = 0.03364 = 3.36\%$

A is incorrect. It is calculated as $(1 + 0.0325/4)^4 - 1 = 0.0329$.

B is incorrect. It uses 360 instead of 365 in converting HPY into EAY.

D: $0.0325 = (D/100) \times (365/90)$: $D = 0.8013$, so $P = 100 - D = 99.1987$

HPY: $0.8013/99.1987 = 0.008078$

EAY = $(1 + 0.008078)^{365/90} - 1 = 3.32\%$

Discounted Cash Flow Applications
LOS e, f
Section 4

24 An analysis of US share prices determines that there is consistent underpricing by \$0.02 with a *p*-value of 0.0012. Assuming an average transaction cost of \$0.05, which statement is *most* accurate? The underpricing result is:

A statistically significant and indicates a possible arbitrage opportunity.

B not economically meaningful.

C not statistically significant.

B is correct. The underpricing result is not economically meaningful when the average transaction cost is taken into consideration.

A is incorrect. As explained in C, the result is statistically significant. However, there is no arbitrage opportunity in this case because the transaction cost is too high (i.e., not economically meaningful).

C is incorrect. The result should be statistically significant as a *p*-value of 0.0012 is the smallest level of significance that the null hypothesis is rejected. In this case, it is far less than level of significance of 0.01.

Hypothesis Testing
LOS e, f
Section 2

25 The total probability rule is used when an analyst is interested in:

A all potential outcomes.

B a set of events.

C a single outcome.

A is correct. When the scenarios (conditioning events) are mutually exclusive and exhaustive, no possible outcomes are left out, thereby covering all potential outcomes.

B is incorrect because a set of events does not necessarily cover all possible events and would be calculated using the multiplication rule

C is incorrect because a single outcome is an independent event

Probability Concepts
LOS e
Section 8.2

26 An analyst develops a set of criteria for evaluating distressed credits. Companies that do not receive a passing score are classed as likely to go bankrupt within the next year. The analyst concludes the following:

- Forty percent of the companies tested will go bankrupt within a year: *P(nonsurvivor)* = 0.40.
- Fifty-five percent of companies tested will pass: *P(pass test)* = 0.55.
- There is an eighty-five percent probability that a company will pass the test given that it survives a year: *P(pass test | survivor)* = 0.85.

Using the total probability rule, the probability that a company passed the test given that it goes bankrupt can be determined. The *P(pass test | non-survivor)* is *closest* to:

A 0.22.

B 0.35.

C 0.10.

C is correct. The total probability rule explains the unconditional probability of an event in terms of probabilities conditional on mutually exclusive and exhaustive scenarios, where: $P(A) = P(A|S)P(S) + P(A|S^C)P(S^C)$.

Given that *P(non-survivor)* = 0.40, then *P(survivor)* = 1 − *P(non-survivor)* = 1 − 0.40 = 0.60. Accordingly,

P(pass test) = P(pass test | survivor)P(survivor) + P(pass test | non-survivor) P(non-survivor)

0.55 = 0.85(0.60) + *P(pass test | non-survivor)*(0.40)

Thus, *P(pass test | non-survivor)* = [0.55 − 0.85(0.60)]/0.40 = 0.10.

A is incorrect because the total probability rule is a weighted average probability of all possible scenarios. This answer incorrectly applies the multiplication rule, which holds that the joint probability of two independent (not conditional) events equals the product of the two individual probabilities for non-survivors and passing the test: (0.40)(0.55) = 0.22, which does not account for all mutually exclusive and exhaustive scenarios as required by the total probability rule.

B is incorrect because 0.35 is the result if the probability of *P*(*non-survivor*) = 0.60. The question states that the probability of *P*(*non-survivor*) is 0.40, not 0.60. It is calculated as [0.55 − 0.85(0.40)]/0.60 = 0.35.

Probability Concepts
LOS h
Section 8.2

27 The sampling error is *best* described as the:

A sample standard deviation divided by the square root of the sample size.

B difference between the observed value of a statistic and the quantity it is intended to estimate.

C sum of squared deviations from the mean divided by the sample size minus one.

B is correct. The sampling error is the difference between the observed value of a statistic and the quantity it is intended to estimate.

A is incorrect. The sample standard deviation divided by the square root of the sample size is the standard error of the sample mean.

C is incorrect. The sum of squared deviations from the mean divided by the sample size minus one is the sample variance.

Sampling and Estimation
LOS b
Section 2.1

28 Use the following values from a student's t-distribution to establish a 95% confidence interval for the population mean given a sample size of 10, a sample mean of 6.25, and a sample standard deviation of 12. Assume that the population from which the sample is drawn is normally distributed and that the population variance is not known.

Degrees of Freedom	p = 0.10	p = 0.05	p = 0.025	p = 0.01
9	1.383	1.833	2.262	2.821
10	1.372	1.812	2.228	2.764
11	1.363	1.796	2.201	2.718

The 95% confidence interval is *closest* to a:

A lower bound of –2.20 and an upper bound of 14.70.

B lower bound of –0.71 and an upper bound of 13.21.

C lower bound of –2.33 and an upper bound of 14.83.

C is correct. 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:

$\bar{X} \pm t_{0.025}\frac{s}{\sqrt{n}}$ where $\bar{X}$ is the sample mean, s is the sample standard deviation, and n is the sample size. In this case: 6.25 ± 2.262 × $12/\sqrt{10}$ = 6.25 ± 8.58369 or **–2.33 to 14.83**.

A is incorrect: it uses the t-statistic for 10 degrees of freedom, not 9: 6.25 ± 2.228 × $12/\sqrt{10}$.

B is incorrect: it uses the t-statistic for p = 0.05 rather than p =0.025: 6.25 ± 1.833 × $12/\sqrt{10}$.

Sampling and Estimation
LOS j
Section 4.2

29 Which of the following statements is *most* accurate? The first quintile generally exceeds the:

A first quartile.

B median.

C first decile.

C is correct. The first quintile is the 20th percentile (a percentile indicates the value below which a given percentage of observations in a group fall). The first decile is the 10th percentile, the first quartile is the 25th percentile, and the median is the 50th percentile. Although it is possible that these various percentiles or some subsets of them might be equal (for example, the 10th percentile possibly could be equal to the 20th percentile), in general, the order from smallest to largest would be: first decile, first quintile, first quartile, median.

B is incorrect. The first quintile is the 20th percentile. The first decile is the 10th percentile, the first quartile is the 25th percentile, and the median is the 50th percentile.

A is incorrect. The first quintile is the 20th percentile. The first decile is the 10th percentile, the first quartile is the 25th percentile, and the median is the 50th percentile.

Statistical Concepts and Market Returns
LOS f
Section 6.1

30 The process of looking for inflection points in one market that may signal a trend change in a related market is *best* described as:

A capital market cycle analysis.

B relative strength analysis.

C momentum analysis.

B is correct. In intermarket analysis, technicians often use relative strength analysis to look for inflection points in one market as a warning sign to start looking for a change in trend in a related market.

A is incorrect. Analysis of capital market cycles is used to find trends that may help predict future price movements based on the reoccurrence of historical cycles. This is typically looked at for a single market, not based on intermarket correlations.

C is incorrect. Momentum analysis is focused on identifying changes in market sentiment for a single market, not intermarket correlations.

Technical Analysis
LOS h
Section 5

31 Assume the following:

- The real risk-free rate of return is 3%.
- The expected inflation premium is 5%.
- The market-determined interest rate of a security is 12%.

The sum of the default risk premium, liquidity premium, and maturity premium for the security is *closest* to:

A 10%.

B 4%.

C 8%.

B is correct. The market-determined interest rate is equal to the real risk-free rate of return plus an inflation premium plus risk premiums for default risk, liquidity, and maturity. In this case, 12 = 3 + 5 + *X*. Solving for *X*: *X* = 4.

A is incorrect. 10% =12% – (5% – 3%)

C is incorrect. Eight percent is the sum of the real risk-free rate and expected inflation.

The Time Value of Money
LOS b
Section 2

32 Given stable aggregate supply, which of the following changes in aggregate demand is *most likely* to cause economic expansion?

A An increase in corporate income tax

B An increase in foreign currency per unit of domestic currency

C An increase in capacity utilization

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

A is incorrect. A decrease, not an increase, in corporate income tax will cause an increase in aggregate demand through higher investment and increase GDP (economic expansion).

B is incorrect. A decrease, not an increase, in exchange rate (foreign currency per unit domestic currency) will cause an increase in aggregate demand through higher exports with lower imports and increase GDP (economic expansion).

Aggregate Output, Prices, and Economic Growth
LOS i, h
Section 3.3.1

33 Assume the percentage increases in each of the following listed items:

	Percentage Increase
Real domestic exchange rate (USD/EUR)	5
Eurozone price level	2
US price level	1.5

The predicted change in the nominal US spot exchange rate is *closest* to:

A 4.5%.

B –0.5%.

C 5.5%.

A is correct. Change in the nominal exchange rate =

$$\left(1+\frac{\Delta R_f^d}{R_f^d}\right)\times\frac{\left(1+\dfrac{\Delta P_d}{P_d}\right)}{\left(1+\dfrac{\Delta P_f}{P_f}\right)}-1=\left(1+5\%\right)\times\frac{\left(1+1.5\%\right)}{\left(1+2\%\right)}-1=4.5\%$$

B is incorrect because the change in the real exchange rate is not included: [(1 + 1.5%)/(1 + 2%)] – 1 = –0.5%.

C is incorrect because the change in the price levels are inverted: (1 + 5%) × [(1 + 2%)/(1 + 1.5%)] – 1 = 5.5%.

Currency Exchange Rates
LOS a
Section 2

34 The production capabilities of two countries for computers and phones is as follows:

Country	Output per Worker per Year	
	Computers	Phones
X	600	900
Y	400	800

Country X is *best* described as having a comparative advantage over Country Y for producing:

A computers.

B phones.

C phones and computers.

A is correct. A country has a comparative advantage if its opportunity cost for producing a product is less than its trading partners: the cost of a computer in units of phones is lowest for Country X.

Country	Computers	Phones	Opportunity Cost of Computers (Phones per Computer)	Opportunity Cost of Phones (Computer per Phones)
X	600	900	1.5	0.67
Y	400	800	2.0	0.5

Country X has an absolute advantage over country Y in producing both computers and phones.

B is incorrect because Country Y has the higher opportunity cost in making phones.

C is incorrect because Country Y has a comparative advantage in making phones.

International Trade and Capital Flows

LOS c

Section 2.4.1

35 A country's international transactions accounts data for last year are presented in its domestic currency:

Transaction	Amount
Exports of goods and services	10,000
Import of goods and services	14,216
Investment income payments made to foreigners	2,519
Investment income received from foreigners	3,409
Net change in assets owned abroad	1,548
Net change in foreign-owned assets domestically	4,989
Unilateral current transfers received	346
Unilateral current transfers paid	1,107
Statistical discrepancy	646

The current account balance is *closest* to:

A –4,087.

B −4,216.

C −4,345.

A is correct.

Current Account Amounts with Signs and Grouped Appropriately:

Transaction	Amount	Totals
Export of goods and services and income receipts		13,409
Export of goods and services	10,000	
Investment income received from foreigners	3,409	
Import of goods and services and income payments		−16,735
Import of goods and services	−14,216	
Investment income payments made to foreigners	−2,519	
Net unilateral current transfers		−761
Unilateral current transfers received	346	
Unilateral current transfers paid	−1,107	
Current account balance		−4,087

C is incorrect. It mixes up the direction of flow for the income payments and receipts and the unilateral transfers

Exports + Income payments made + Unilateral transfers paid = 10,000 + 1,107 + 2,519 + 1,107 = 13,626

Imports + Income payments received + Unilateral transfers received = 14,216 + 3,409 + 346 = 17,971

13,626 − 17,971 = −4,345

B is incorrect. It is simply Exports − Imports: 10,000 − 14,216 = −4,216

International Trade and Capital Flows

LOS h

Sections 4.1, 4.2

36 Which of the following statements regarding the characteristics of money is correct?

A Compared to a barter economy, an economy in which money is the medium of exchange has more prices.

B Money as a medium of exchange depends on shared beliefs about its value.

C Money's low value relative to its weight enhances wealth portability.

B is correct. For money to serve as a medium of exchange, economic agents must have a shared belief in its value and that it will retain its value. Without such shared beliefs, money would not be able to fulfill its role as a store of value, thereby jeopardizing its status as a medium of exchange.

A is incorrect because in its role as a unit of account, money drastically reduces the number of prices in an economy compared to a barter economy. In a barter economy, prices must be established for a good in terms of all other goods for which it might be exchanged.

C is incorrect because a high value (rather than low value) relative to its weight is a characteristic of money that enables it to serve as a medium of exchange. Money's high value relative to its weight offers the convenience of wealth portability in fulfilling a variety of transaction needs.

Monetary and Fiscal Policy
LOS b
Section 2.1.1

37 If a central bank reduces the money supply, this move will *most likely* lead to a:

A rise in nominal interest rates and a decline in aggregate price level.

B rise in nominal interest rates and a rise in aggregate price level.

C decline in nominal interest rates and a rise in aggregate price level.

A is correct. A reduction in the money supply (leftward shift) leads to an increase in nominal rates. Furthermore, on the basis of the quantity theory of money, a reduced money supply makes money more valuable (thus a higher interest rate), which reduces aggregate price levels.

B is incorrect because a reduction in the money supply decreases, rather than increases, aggregate price levels.

C is incorrect because a reduction in the money supply will increase, rather than decrease, nominal interest rates.

Monetary and Fiscal Policy
LOS d
Sections 2.1.6

38 According to the Fisher effect, an increase in expected inflation will *most likely* increase:

A the real interest rate.

B both nominal and real interest rates.

C the nominal interest rate.

C is correct. 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.

A is incorrect. An increase in expected inflation increases only the nominal rate.

B is incorrect. An increase in expected inflation increases only the nominal rate.

Monetary and Fiscal Policy
LOS e

Section 2.1.7

39 The primary monetary policy goal of most major central banks is *best* characterized as:

A maintaining price stability.

B stimulating economic growth.

C maintaining low interest rates.

A is correct. The primary monetary policy goal of most major central banks is to maintain price stability.

B is incorrect. Though stimulating economic growth can be part of certain central banks objectives, the overriding objective is maintaining price stability.

C is incorrect. Central banks may have a variety of objectives, but the overriding one is maintaining price stability.

Monetary and Fiscal Policy
LOS f
Section 2.3

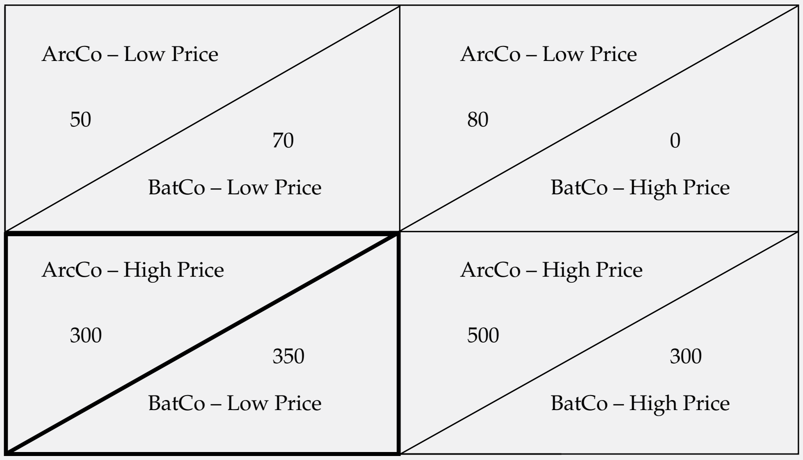
40 Assume that two firms in a duopoly enter into a collusive agreement in an attempt to form a cartel and restrict output, raise prices, and increase profits. According to the Nash equilibrium, a low price is *most likely* charged by:

A only one firm.

B both firms.

C neither firm.

C is correct. The market outcomes for two firms in a duopoly is shown in the diagram. The lower left hand quadrant is the Nash solution when there is **no collusion**. However, **with collusion**, if ArcCo shares at least enough of its profit in the bottom right quadrant to provide BatCo more than it would receive in the lower left, it will be the optimal solution for the pair: the **maximum joint profits** will arise where ***both firms charge high prices for the product***.



B is incorrect; as per the explanation and exhibit above.

A is incorrect; as per the explanation and exhibit above.

The Firm and Market Structures
LOS f
Section 5.1

41 Assume the following consumption basket and prices over 2011 and 2012 (in US dollars):

	2011		2012	
Item	**Price**	**Quantity**	**Price**	**Quantity**
Meat	$12/kg	30 kg	$12.2/kg	35 kg
Rice	$1/kg	55 kg	$1.1/kg	50 kg
Milk	$1.5/liter	65 liters	$1.6/liter	65 liters
Fuel	$1/liter	95 liters	$1.2/liter	85 liters

The Fisher index is *closest* to:

A 106.1.

B 105.4.

C 105.8.

C is correct. Fisher Index = $(I_L \times I_P)^{0.5}$.

	2011		2012		Laspeyres Index I_L		Paasche Index I_P	
Item	**Price**	**Quantity**	**Price**	**Quantity**	$P_{11} \times Q_{11}$	$P_{12} \times Q_{11}$	$P_{11} \times Q_{12}$	$P_{12} \times Q_{12}$
Meat	$12/kg	30 kg	$12.2/kg	35 kg	360	366	420	427
Rice	$1/kg	55 kg	$1.1/kg	50 kg	55	60.5	50	55
Milk	$1.5/liter	65 liters	$1.6/liter	65 liters	97.5	104	97.5	104
Fuel	$1/liter	95 liters	$1.2/liter	85 liters	95	114	85	102
				Total	607.5	644.5	652.5	688
				Index		106.1 = 644.5/607.5		105.4 = 688/652.5

Note: The "11" and "12" subscripts refer to years 2011 and 2012, respectively

Fisher Index = $(I_L \times I_P)^{0.5}$ = $(106.1 \times 105.4)^{0.5}$ = 105.8
A is incorrect because it calculates the Laspeyres index.
B is incorrect because it calculates the Paasche index.
Understanding Business Cycles
LOS f

Section 4.2.2

42 Cost–push inflation is *least likely* to be affected by an increase in:

A employee wages.

B finished goods prices.

C commodity prices.

B is correct. Cost–push inflation arises due to increases in costs associated with production: wages and raw materials prices.

A is incorrect. Cost–push inflation arises due to increases in costs associated with production. Wages are the single biggest cost to businesses.

C is incorrect. Cost–push inflation arises due to increases in costs associated with production. Commodities are an input to production, so they are major source of cost–push inflation.

Understanding Business Cycles
LOS h
Section 4.2.4.1

43 All else remaining equal, a decline in the average duration of unemployment *most likely* indicates that an economic:

A upturn is beginning.

B upturn has already occurred.

C downturn is forthcoming.

B is correct. The average duration of unemployment is a lagging economic indicator because businesses wait until a downturn looks genuine before laying off employees and until recoveries look secure before rehiring. If there is a decline in the average duration of unemployment, then it means that companies have been hiring, which indicates that an economic upturn has already occurred.

A is incorrect. Average duration of unemployment is a lagging indicator, not a coincident indicator.

C is incorrect. Although the average duration of unemployment is a lagging indicator, it is more directly indicating that an upturn has been underway, not that a downturn is forthcoming.

Understanding Business Cycles
LOS i
Section 5

44 The following table provides selected ratios for a company's two main operating segments during the past two years:

		Profit Margin (%)		EBIT/Assets		Asset Turnover		Debt/Assets	
Segment	Asset Growth (%)	Current	Prior	Current	Prior	Current	Prior		Prior
1	12	18.0	19.0	64.8	76.0	3.6	4.0	0.55	0.43
2	15	23.0	26.0	66.7	88.4	2.9	3.4	0.62	0.51

Which of the following statements is *most* appropriate? The segment:

A that is currently most efficient is also financed the most conservatively.

B that had the lowest profit margin experienced the most aggressive expansion.

C that earned the most per dollar invested last year failed to do so again in the current year.

A is correct. Segment 1 is the most efficient (highest turnover) and has the lowest debt-to-asset ratio. Therefore, it has the most conservative financing.

		Profit Margin	EBIT/Asset		Asset Turnover	Debt/Assets
Segment	**Asset Growth**	**Prior**	**Current**	**Prior**	**Current**	**Current**
1	12.0%	19.0%	64.8%	76%	3.6	0.55
2	15.0%	26.0%	66.7%	88.4%	2.9	0.62

B is incorrect. Assets in Segment 2 have grown the most at 15%, but Segment 1 has the lowest profit margin (in both years).

C is incorrect. The highest EBIT/asset ratio in both years was Segment 2 (88% and 66.7%).

Financial Analysis Techniques
LOS e
Section 4.6.1

45 Operating segments are *most likely* reportable if they constitute 10% or more of the total for all operating segments of which financial metrics?

A Assets, profit/loss, or revenue

B Capital expenditures, liabilities, or profit/loss

C Amortization expense, assets, or revenue

A is correct. A company must disclose separate information about any operating segment that constitutes 10% or more of the combined operating segments' revenue, assets, or operating profit/loss.

B is incorrect. Information about capital expenditures and liabilities must be disclosed for reportable operating segments, but there are no qualifying tests based on these elements.

C is incorrect. Information about amortization expenses must be disclosed for reportable operating segments, but there is no qualifying test based on amortization expense.

Financial Analysis Techniques
LOS f
Section 7.1

46 Accounting choices within GAAP that decrease reported performance in the current period and may increase performance in later periods are most likely examples of:

A aggressive accounting.

B conservative accounting.

C earnings that are not sustainable.

B is correct. Conservative accounting choices decrease the company's reported performance and financial position in the current period and may increase its reported performance and financial position in later periods.

A is incorrect because aggressive accounting choices have the opposite effect of increasing the company's reported performance and financial position in the current period and may decrease its reported performance and financial position in later periods

C is incorrect because conservative accounting such as decreasing current reported performance and increasing later reported performance does not typically create a sustainability issue.

Financial Reporting Quality
LOS c
Section 2.3 and 2.5

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47 Which of the following items is a non-GAAP financial measure?

A Net income after taxes

B Income from operations

C EBITDA

C is correct. EBITDA is a non-GAAP financial measure. The SEC prohibits the exclusion of charges or liabilities requiring cash settlement from any non-GAAP liquidity measures other than EBIT and EBITDA.

A is incorrect because net income after taxes is a GAAP-compliant financial measure that should be defined, calculated, and presented consistently with the same measure on income statements of other US-based publicly traded companies.

B is incorrect because income from operations is a GAAP-compliant financial measure that should be defined, calculated, and presented consistently with the same measure on income statements of other US-based publicly traded companies.

Financial Reporting Quality
LOS g
Section 4.1

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48 Which of the following *best* describes a responsibility of the SEC?

A Overseeing the Public Companies Accounting Oversight Board (PCAOB)

B Prosecuting analysts who disseminate conclusions based on non-material non-public information

C Promoting the adoption of global financial reporting standards

A is correct. The SEC is responsible for overseeing the PCAOB under the Sarbanes–Oxley Act of 2002.

B is incorrect. Under mosaic theory, it is not a violation of CFA Institute standards or securities laws to disseminate conclusions based on non-material non-public information in combination with an analysis of public information

C is incorrect. This is one of the principle objectives of the IFRS Foundation.

Financial Reporting Standards

LOS b

Section 3.2.2

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

A US GAAP or under IFRS with a reconciliation to US GAAP.

B US GAAP or under IFRS.

C US GAAP with voluntary supplemental reporting under IFRS.

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

A is incorrect. Although reconciliations were required in the past, they are no longer required.

C is incorrect. The SEC does not mandate US GAAP as the primary reporting regime for foreign private issuers.

Financial Reporting Standards

LOS c

Sections 4, 7

50 The joint conceptual framework project of the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) guides the development of standards that are *best* described as:

A integrated with local legal and economic norms.

B comprehensive, complex rules designed to increase uniformity.

C based on principles that limit the range of acceptable approaches.

C is correct. The joint conceptual framework project aims to develop accounting standards based on principles in an attempt to achieve consistency in financial reporting approaches and judgments while trying to limit the range of acceptable answers.

A is incorrect. The joint conceptual framework project reflects the widespread recognition that coordination among global standard-setting bodies is better suited to global capital markets than independent development of financial reporting standards within each country.

B is incorrect. This statement describes rules-based standards. The joint conceptual framework is designed to foster the development of principles-based standards.

Financial Reporting Standards

LOS d, a

Section 2

51 A cell phone manufacturer has switched to high-margin premium-priced products with the most innovative features as part of its product differentiation strategy. Which of the following other changes is *most* consistent with this strategy?

A An increase in inventory levels

B A decrease in research and development expenditures

C An increase in advertising expenditures

C is correct. Expenditures on advertising and research are required to support a product differentiation strategy. The effect on inventory is uncertain.

A is incorrect because it is uncertain what the impact on inventory would be.

B is incorrect because R&D expenditures would be expected to increase.

Financial Statement Analysis: Applications

LOS a

Section 2

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52 A credit rating agency uses "scale and diversification" as one of its metrics to assess credit risk. Which of the following would *most likely* be included in that category?

A Purchasing power with suppliers

B Cost structure

C Operating cash flow less dividends

A is correct. Borrowers can better withstand adverse events when they have more purchasing power with suppliers. Purchasing power reflects the organization's scale.

B is incorrect. This measure would be of interest to credit analysts, but as an indication of operational efficiency rather than scale and diversification.

C is incorrect. This measure would be of interest to credit analysts, but as an indication of tolerance for leverage rather than scale and diversification.

Financial Statement Analysis: Applications

LOS c

Section 4

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53 A company purchased equipment in 2013 for £25,000. The year-end values of the equipment for accounting purposes and tax purposes are as follows:

Year Ending:	2014	2013
Carrying amount for accounting purposes	£20,000	£22,500
Tax base for tax purposes	£16,000	£20,000
Tax rate	25%	30%

Which of the following statements *best* describes the effect of the change in the tax rate on the company's 2014 financial statements? The deferred tax liability:

A decreases by £800.

B increases by £250.

C decreases by £200.

C is correct.

Deferred tax liability = Taxable temporary difference × Tax rate

In 2014, if the rates had not changed, the deferred tax liability would be:

0.30 × £4,000 = £1,200

But with the lower tax rate, the deferred tax liability will be:

0.25 × £4,000 = £1,000

Effect of the change in rate thus is a decrease in the liability:

–£200

Alternative calculation = Change in rate × Taxable difference

–0.05 × £4,000 = –£200

A is incorrect. It is the change in rate (5%) × the taxable amount: 0.05 × 16,000 = 800.

B is incorrect. The deferred tax liability increased by 250: 4,000 × 0.25 – 2,500 × 0.30.

Income Taxes

LOS d, e

Section 3.3

54 One reason that the last-in, first-out (LIFO) inventory valuation method is widely used in the United States is *most likely* that it:

A results in higher reported gross profit.

B is available under both US GAAP and International Financial Reporting Standards.

C results in higher operating cash flows.

C is correct. LIFO is widely used in the United States because it results in a higher cost of goods sold, and thus lower taxable profits, under the assumption of historically rising prices. Income taxes are correspondingly lower, and thus operating cash flows are higher.

A is incorrect. Under normal conditions (rising prices), the LIFO method results in a higher reported cost of goods sold and a lower reported gross profit.

B is incorrect. IFRS does not allow LIFO as an inventory valuation method.

Inventories

LOS e

Section 4.0

55 Depreciation expense under which of the following methods is *least likely* affected by the estimate of the useful life of the asset?

A Double declining balance method

B Straight-line method

C Units-of-production method

C is correct. The units-of-production method is independent of the useful life estimate.

A is incorrect. The double declining balance method is linked to useful life estimate because the “double” refers to doubling the rate determined under the straight-line method which depends on the useful life.

B is incorrect. The straight-line method is linked to useful life estimate.

Long-Lived Assets

LOS d

Section 3.1

56 A company that reports in accordance with IFRS does not use the cost model to value its investment properties and property, plant, and equipment. Information related to an investment property and a plant is as follows:

	End of Year	
€ thousands	**Carrying Value**	**Fair Value**
Investment property	1,000	1,100
Plant	1,000	1,200

The impact on its net income for the year will *most likely* be a gain (in thousands) of:

A €100.

B €300.

C €200.

A is correct. The fair value model would be used for the investment property, and the €100 thousand gain should be recognized on the company's income statement. The revaluation model would be used for the plant, and the €200 thousand gain should be recognized in the revaluation surplus account on the balance sheet with no impact on net income. Therefore, only the €100 thousand will affect net income.

B is incorrect. The revaluation model would be used for the plant, and the gain should be recognized in the revaluation surplus account on the balance sheet. This is a new purchase and therefore no gains need to be recognized on the income statement to reverse previously recognized losses. Therefore, a maximum of $100,000 would be recognized on the income statement.

C is incorrect. The revaluation model would be used for the plant, and the gain should be recognized in the revaluation surplus account on the balance sheet. This is a new purchase and therefore no gains need to be recognized on the income statement to reverse previously recognized losses.

Long-Lived Assets
LOS h, l
Sections 4 & 8

57 The following is selected balance sheet data for a company along with information about its financial and operating lease obligations.

As of 31 December 2014	(€ millions)
Long-term debt	1,347
Total shareholder's equity	11,268
Total assets	20,097

Note 18. Finance and Operating Leases

A. Finance Leases
The implicit interest rate on finance leases for 2014 was 6.0%.

(continued)

Note 18. Finance and Operating Leases

B. Operating Lease Commitments as of 31 December 2014 (€ millions)	
Due 1 January 2015	130
Due 1 January 2016	130
Due 1 January 2017	130
Due 1 January 2018	130
Due 1 January 2019	80
Total of future lease payments thereafter*	240
Total commitments	840

* After 2019, all lease payments are assumed to be the same as in 2019.

If the company were to capitalize its long-term leases, its adjusted long-term debt-to-assets ratio as of the end of December 2014 would be *closest* to:

A 9.9%.

B 10.2%.

C 10.4%.

A is correct. If the leases were capitalized, both total assets and liabilities would increase by the present value of the lease payments.

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 (PVA^{ADV}): 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 by	Present Value at Start of 2015
2015 to 2018	130 × PVA^{ADV} (4 years, 6%) = 477.5	Not required	477.5
2019 and beyond	80 × PVA^{ADV} (4 years, 6%) = 293.8 at 2019	$1/(1.06)^4$	232.7
		Total	710.2

PVA^{ADV} (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 × PV Factor	PV
0	130	130 × PV (0 years, 6.0%)	130.0
1	130	130 × PV (1 year, 6.0%)	122.6
2	130	130 × PV (2 years, 6.0%)	115.7
3	130	130 × PV (3 years, 6.0%)	109.1
4	80	80 × PV (4 years, 6.0%)	63.3
Beyond 4	240/80 per year = 3 years	80 × PVA (3 years, 6.0%) × PV (4 years, 6.0%)	169.4
		Total	710.1

PVA (3 years, 6%) by financial calculator: N = 3; I = 6; PMT = 1; Mode = END; Compute PV

B is incorrect. Adding PV(Operating lease) only to debt: 2,057/20,097 = 10.2%.

C is incorrect. The undiscounted total commitments are added to both assets and long-term debt:

Adjusted debt ratio = (1,347 + 840)/(20,097 + 840) = 10.4%

Long-Lived Assets

LOS o

Section 9.2.1

Non-Current (Long-Term) Liabilities

LOS h, i

Section 3.2.1

58 A company that provides cruise ship vacations uses term loans to finance the acquisition of new cruise ships. Which of the following is *most likely* a negative covenant for the loans? The company must:

A ensure the ships are insured.

B seek lender approval to pay dividends.

C maintain a minimum level of working capital.

B is correct. Negative covenants require that a borrower not take certain actions. The requirement to seek the lender's approval before paying dividends is an example of a negative covenant. The other two are affirmative covenants.

A is incorrect. This is an affirmative covenant. The bank would want to ensure that the ships, or collateral for the loan, are adequately insured.

C is incorrect. This is an affirmative covenant. Maintaining a minimum level of working capital is often a covenant to ensure the company has adequate levels of liquidity to make the interest payments.

Non-Current (Long-Term) Liabilities

LOS d

Section 2.5

59 A company issued bonds in 2012 that mature in 2022. The measurement basis that will *most likely* be used on the 2012 balance sheet for the bonds is:

A amortized cost.

B market value.

C historical cost.

A is correct. Bonds payable issued by a company are financial liabilities that are usually measured at amortized cost.

B is incorrect. Only financial liabilities held for trading are measure at market value, and that does not include bonds issued by the company.

C is incorrect. Historical cost would record the bonds at the value at date of issue and not amortize the bond premium or discount over the life of the bond.

Understanding Balance Sheets
LOS e
Section 5.1
Non-Current (Long-Term) Liabilities
LOS a
Section 2.2

60 A firm reports sales of €50,000 for the year ended 31 December 2012. Its accounts receivable balances were €6,000 at 1 January 2012 and €7,500 at 31 December 2012. The company's cash collections from sales for 2012 is *closest* to:

A €48,500.

B €51,500.

C €42,500.

A is correct. Cash collections from sales equals beginning receivables plus sales less ending receivables:

€6,000 + €50,000 – €7,500 = €48,500

B is incorrect. It is sales plus the change in receivables: €50,000 + (€7,500 – €6,000) = €51,500.

C is incorrect. It is sales less the end receivables: €50,000 – €7,500 = €42,000.

Understanding Cash Flow Statements
LOS f
Sections 3.1, 3.2.1.1

61 Which of the following *best* describes a component of the income statement?

A Amounts that a company owes its vendors for purchases of goods and services

B Outflows or depletions of assets in the course of a business's activities

C Obligations from past events that are expected to result in an outflow of economic benefits

B is correct. Expenses are a component of the income statement and are defined as outflows, asset depletions, and liabilities incurred in the course of a business's activities.

A is incorrect. Accounts payable is a liability, a component of the balance sheet, and is defined as amounts that a company owes its vendors for purchases of goods and services.

C is incorrect. Liabilities are a component of the balance sheet and are defined as obligations from past events that on settlement are expected to result in an outflow of economic benefits.
Understanding Income Statements
LOS a
Section 2

62 The post-audit performed as part of the capital budgeting process is *least likely* to include the:

A provision of future investment ideas.

B rescheduling and prioritizing of projects.

C indication of systematic errors.

B is correct. Rescheduling and prioritizing projects is part of the planning stage of the capital budgeting process, not the post-audit. The post-audit's purpose is to explain any differences between the actual and predicted results of a capital budgeting project. This process can aid in indicating systematic errors, improve business operations, and provide concrete ideas for future investment opportunities.

A is incorrect. Rescheduling and prioritizing projects is part of the planning stage of the capital budgeting process, not the post-audit. The post-audit's purpose is to explain any differences between the actual and predicted results of a capital budgeting project. This process can aid in indicating systematic errors, improve business operations, and provide concrete ideas for future investment opportunities.

C is incorrect. Rescheduling and prioritizing projects is part of the planning stage of the capital budgeting process, not the post-audit. The post-audit's purpose is to explain any differences between the actual and predicted results of a capital budgeting project. This process can aid in indicating systematic errors, improve business operations, and provide concrete ideas for future investment opportunities.
Capital Budgeting
LOS a
Section 2

63 Which of the following is *most* consistent with good corporate governance practices?

A All stakeholders should have the right to participate in the governance of the firm.

B An audit committee that benefits from the direct guidance of management.

C Appropriate controls and procedures to effectively manage the firm should be in place.

C is correct. Effective corporate governance requires a system of appropriate controls and procedures to protect financial markets and investors.

A is incorrect. Only shareholders have the right (not all stakeholders) to participate in the governance of the firm.

B is incorrect. The audit and compensation committees are best structured with exclusively independent directors, and no management involvement.
Corporate Governance and ESG: An Introduction
LOS a

Section 2

64 Based on good corporate governance practices, independent board members *most likely*:

A are pre-approved by management before being nominated.

B have a “lead” director when the board chair is not independent.

C hold large equity positions but have never worked at the company.

B is correct. Under good corporate governance practices, independent board members should have a “lead” director when the board chair is not independent.

A is incorrect. The Nomination Committee identifies qualified candidates for director positions, not management.

C is incorrect. Board members with a large stake in the company are not independent because they have a material ownership relationship with it.

Corporate Governance and ESG: An Introduction
LOS f
Section 5.1

65 Given the following information about a firm:

- debt-to-equity ratio (D/E) of 50%
- tax rate of 40%
- cost of debt of 8%
- cost of equity of 13%

the firm’s weighted average cost of capital (WACC) is *closest to*:

A 8.9%.

B 7.5%.

C 10.3%.

C is correct. Convert D/E to the weight for debt:

$$\frac{1}{3} = \frac{D/E}{(1 + D/E)} = \frac{0.50}{(1 + 0.50)}$$

The weight for equity is one minus the weight of debt: 2/3 = 1 – (1/3).

$$\begin{aligned} \text{WACC} &= \text{weight of debt} \times \text{cost of debt} \times (1 - \text{tax rate}) + \text{weight of equity} \\ &\quad \times \text{cost of equity} \\ &= (1/3) \times 0.08 \times (1 - 0.40) = (2/3) \times 0.13 \\ &= 0.1026 = 10.3\% \end{aligned}$$

A is incorrect because it uses a 50% weight for debt and equity.

B is incorrect because it uses (2/3) for the weight of debt and (1/3) for the weight of equity.

Cost of Capital
LOS a, b
Sections 2, 2.1, 2.2

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

A Debt-rating approach only.

B Yield-to-maturity approach only.

C Both the yield-to-maturity and the debt-rating approaches.

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

B is incorrect because the yield-to-maturity approach is not an example of matrix pricing.

C is incorrect because the yield-to-maturity approach is not an example of matrix pricing.

Cost of Capital
LOS f
Section 3.1.1, 3.1.2

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67 A company recently issued a 10-year, 6% semiannual coupon bond for \$864. The bond has a maturity value of \$1,000. If the marginal tax rate is 35%, the after-tax cost of debt (%) is *closest* to:

A 3.9%.

B 5.2%.

C 2.6%.

B is correct. The pre-tax cost of debt is the yield to maturity (YTM) of the bond. The bond's YTM can be calculated by solving the following equation for *i*:

$$864 = \left(\sum_{t=1}^{20} \frac{30}{(1+i)^t}\right) + \frac{1000}{(1+i)^{20}}$$

Using a financial calculator, enter *N* = 20 (semiannual periods), *w* = –864, PMT = 30, and FV = 1,000. Compute *I/YR*. The six-month yield (or calculated *I/YR*) is 4%. The YTM is obtained by doubling the six-month yield to get 8%. Multiplying the pre-tax cost of debt by (1 – Tax rate) gives the result of 8 × (1 – 0.35) = 5.2%.

A is incorrect. If the after-tax amount of the coupon rate is used, the result will be 0.06(1 – 0.35) = 3.9%.

C is incorrect. If the after-tax cost for six-month yield is used, the result will be 0.04(1 – 0.35) = 2.6%.

Cost of Capital
LOS f
Section 3.1

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68 A company has an equity beta of 1.4 and is 60% funded with debt. Assuming a tax rate of 35%, the company's asset beta is *closest* to:

A 0.98.

B 1.01.

C 0.71.

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

$$\begin{aligned}\beta_{\text{Asset}} &= \beta_{\text{EQ}} \times \left\{1 \big/ \left[1 + (1 - t)\text{D/E}\right]\right\} \\ &= 1.4 \big/ \left[1 + (1 - 0.35) \times 1.5\right] \\ &= 0.7089\end{aligned}$$

A is incorrect because it uses the inverse of the D/E ratio:

$$0.9766 = 1.4 \big/ \left[1 + (1 - 0.35)66.7\%\right]$$

B is incorrect because it uses the 60% debt financing instead of the D/E ratio:

$$1.0072 = 1.4 \big/ \left[1 + (1 - 0.35)60\%\right]$$

Cost of Capital
LOS i
Section 4.1

69 Which of the following situations is the *least likely* reason why the marginal cost of capital schedule for a company rises as additional funds are raised?

A The company seeks to issue less senior debt because it violates the debt incurrence test of an existing debt covenant.

B The cost of additional funds from various sources rises as higher levels of financing are achieved.

C The company deviates from its target capital structure because of the economies of scale associated with flotation costs and market conditions.

B is correct. The WACC does not necessarily increase as more funds are being raised. Higher amounts of funding would not change the WACC if everything were in proportion to the old target capital structure. It is the changes in relative proportions of sources of funding that could make a difference because of interest deductibility and financial risk.

A is incorrect. The debt incurrence test may restrict a company's ability to incur additional debt at the same seniority based on financial tests or conditions. They will have to issue a less senior debt (or even equity) which would have higher cost.

C is incorrect. A company does not necessarily raise more funds according to its target capital structure because of the economies of scale in raising new capital and market conditions. These short-run deviations are due to the "lumpiness" of security issuance. The marginal cost of capital may increase, reflecting these deviations.

Cost of Capital
LOS k
Section 4.3

70 An inventory system that reduces average inventory without affecting sales will *most likely* reduce the:

A quick ratio.

B inventory turnover.

C cash conversion cycle.

C is correct. 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.

A is incorrect. Quick ratio will increase as the result of efficient inventory system.

B is incorrect. Inventory turnover will increase as the result of efficient inventory system.

Financial Analysis Techniques

Section 4.3.2

LOS b

Working Capital Management

LOS c

Section 2.2

Income Statement	Millions ($)
Revenues	10.2
Variable operating costs	4.6
Fixed operating costs	2.0
Operating income	3.6
Interest	1.2
Taxable income	2.4
Tax	1.0
Net income	1.4

71 The degree of financial leverage (DFL) is *closest* to:

A 2.6.

B 1.5.

C 1.7.

B is correct. DFL = Operating income/Operating income – Interest expense, or operating income divided by pretax earnings:

= \$3.6/(\$3.6 – \$1.2)

= 1.50

C is incorrect because it is Pre-tax income/Net income = \$2.4 million/\$1.4 million.

A is incorrect because it is Operating income/Net income = \$3.6 million/\$1.4 million.

Measures of Leverage

LOS b

Section 3.4

72 If a 90-day \$10,000 US Treasury security is selling for \$9,870, the discount-basis yield is *closest* to:

A 5.27%.

B 5.34%.

C 5.20%.

C is correct.

$$\text{DBY} = \left(\frac{\text{Face value} - \text{Purchase price}}{\text{Face value}}\right) \times \left(\frac{360}{\text{Days to maturity}}\right)$$

$$= \left(\frac{\$10{,}000 - \$9{,}870}{\$10{,}000}\right) \times \left(\frac{360}{90}\right)$$

$$= 0.0520$$

A is incorrect because it is the money market yield [= discount basis yield × (\$10,000/\$9,870)].

B is incorrect because it is the bond equivalent yield [= discount basis yield × (\$10,000/\$9,870) × (365/360)].

Working Capital Management

LOS e

Section 4.1.1

73 The annual cost of trade credit assuming a 365-day year for terms 3/10 net 40 is *closest* to:

A 43.3%.

B 44.9%.

C 32.0%.

B is correct.

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

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

C is incorrect because the "number of days beyond discount" is set to 40.

A is incorrect because (1 + 3%) is the rate being compounded.

Working Capital Management

LOS g

Section 7.1

74 Which of the following types of investment clients *most likely* have the lowest liquidity needs?

A Insurance companies

B Banks

C Endowments and foundations

C is correct. A typical investment objective of an endowment or a foundation is to maintain the real capital value of the fund while generating income to fund the objectives of the institution. Liquidity needs are typically rather low.

A is incorrect because insurance companies have liquidity needs to meet claims.

B is incorrect because banks have high liquidity needs to meet repayment of deposits.
Portfolio Management, An Overview
LOS b
Section 3

75 ABC Company has an obligation to pay a certain amount each month to each of its employees after they retire. This obligation is *most likely* known as a(n):

A endowment.

B defined-contribution pension plan.

C defined-benefit pension plan.

C is correct. A defined-benefit pension plan defines the future benefit that an employer has the obligation to pay in terms of the retirement income benefits owed to participants.

A is incorrect because university endowments are established to provide continuing financial support to a university and its students.

B is incorrect because in a defined-contribution pension plan contributions rather than benefits are specified.

Portfolio Management, An Overview
LOS c
Section 3

76 With respect to the portfolio management process, the execution step *most likely* includes:

A portfolio monitoring.

B asset allocation.

C developing the investment policy statement.

B is correct. Asset allocation is part of the execution step of the portfolio management process. The execution step also includes security analysis and portfolio construction.

A is incorrect. Portfolio monitoring is part of the feedback step of the portfolio management process.

C is incorrect. Preparation of an investment policy statement is part of the planning step of the portfolio management process.

Portfolio Management: An Overview
LOS d
Section 4

77 If Investor A has a lower risk aversion coefficient than Investor B, on the capital allocation line, will Investor B's optimal portfolio *most likely* have a higher expected return?

A Yes

B No, because Investor B has a higher risk tolerance

C No, because Investor B has a lower risk tolerance

C is correct. Investor B has a higher risk aversion coefficient, thus a lower risk tolerance and a lower expected return on the capital allocation line.

A is incorrect. Investor A has a higher expected return on the capital allocation line.

B is incorrect. Investor B has lower risk tolerance.

Portfolio Risk and Return: Part I

LOS d

Section 3.3

78 A portfolio contains equal weights of two securities having the same standard deviation. If the correlation between the returns of the two securities was to decrease, the portfolio risk would *most likely*:

A increase.

B remain the same.

C decrease.

C is correct. The formula for the return standard deviation (risk) of a two asset portfolio is

$$\sigma_p = \sqrt{w_1^2\sigma_1^2 + w_2^2\sigma_2^2 + 2w_1w_2\text{Cov}(R_1, R_2)}$$

The formula for portfolio risk shows that portfolio risk decreases as the correlation decreases.

A is incorrect because the portfolio risk would decrease.

B is incorrect because the portfolio risk would decrease.

Portfolio Risk and Return: Part I

LOS f

Section 4.1.3

79 Information for Stock A and the market appear in the following table:

Standard deviation of Stock A's return	40%
Standard deviation of the market's return	20%
Correlation of Stock A with the market	85%

The beta of Stock A is *closest* to:

A 1.70.

B 2.35.

C 0.43.

A is correct. Beta is calculated as 0.85 × 0.40/0.20 = 1.70.

B is incorrect: 2.35 = 0.4/0.2/0.85.

C is incorrect. 0.43 = 0.85 × 0.20/0.40

Portfolio Risk and Return: Part II

LOS e

Section 3.2.4

80 Which of the following portfolio performance measures are the *most* appropriate for an investor who holds a fully diversified portfolio?

A Sharpe ratio and Treynor ratio.

B Treynor ratio and Jensen's alpha.

C *M*-Squared and Sharpe ratio.

B is correct. 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.

A is incorrect. The Treynor ratio is appropriate for an investor who holds a fully diversified portfolio, but the Sharpe ratio is appropriate for an investor who does not hold a fully diversified portfolio.

C is incorrect because these measures are appropriate for an investor who does not hold a fully diversified portfolio.

Portfolio Risk and Return: Part II
LOS h
Section 4.3

81 Which of the following dates in the dividend chronology can fall on a weekend? The

A payment date.

B record date.

C ex-date.

A is correct. The payment date can occur on a weekend or holiday unlike other pertinent dates, such as the ex-date and record date, which occur only on business days.

B is incorrect. See the above explanation.

C is incorrect. See the above explanation.

Equity Valuation: Concepts and Basic Tools
LOS d
Section 4.1

82 An investor gathers the following information about a company:

Current earnings per share	\$5.00
Current dividend per share	\$3.00
Required rate of return	15.0%
Return on equity (ROE)	17.5%

Using the dividend discount model, the value of the company's stock is *closest* to:

A \$40.13.

B \$73.67.

C \$37.50.

A is correct.

$g = b \times$ ROEwhere

g = dividend growth rate

b = earnings retention rate = (1 – Dividend payout ratio)

$$V_0 = \frac{D_1}{r - g}$$

where

V_0 = value of a share of stock today

D_1 = expected dividend in year 1 = current dividend (D_0) × (1 + g)

r = required rate of return on the stock

$$g = \left(1 - \frac{3}{5}\right) \times 17.5 = 7\%$$

$$V_0 = \frac{3 \times 1.07}{(0.15 - 0.07)} = \$40.13$$

C is incorrect. D_0 is used instead of D_1.

$$V_0 = \frac{3}{(0.15 - 0.07)} = \$37.50$$

B is incorrect. The dividend payout ratio is used instead of earnings retention rate to calculate g.

$$g = \frac{3}{5} \times 17.5 = 10.5\%$$

$$V_0 = \frac{3 \times 1.05}{(0.15 - 0.07)} = \$73.67$$

Equity Valuation: Concepts and Basic Tools
LOS g
Section 4.2

83 Which of the following statements concerning different valuation approaches is *most* accurate?

A One advantage of the three-stage dividend discount model (DDM) model is that it is equally appropriate to young companies entering the growth phase and those entering the maturity phase.

B It is advantageous to use asset-based valuation approaches rather than forward-looking cash flow models in the case of companies that have significant intangibles.

C The justified forward price-to-earnings ratio (P/E) approach offers the advantage of incorporating fundamentals and presenting intrinsic value estimations.

C is correct. The justified forward P/E approach offers the advantage of incorporating fundamentals and presenting intrinsic value estimations.

A is incorrect. The three-stage DDM model is appropriate to young companies entering the growth phase but not those entering the maturity phase. For such companies, the two-stage DDM model is appropriate.

B is incorrect. In the case of companies that carry significant intangibles, the use of forward looking cash flow models is more advantageous than the asset-based valuation models.

Equity Valuation: Concepts and Basic Tools
LOS m
Sections 4.3, 5.1, 6

84 An industry experiencing intense competitive rivalry among incumbent companies is *best* characterized by:

A differentiated products and low exit barriers.

B a small number of competitors and low fixed costs.

C customers basing purchase decisions largely on price.

C is correct. The factor that most influences customer purchase decisions is likely to also be the focus of competitive rivalry in the industry. In general, industries in which price is a large factor in customer purchase decisions tend to be more competitive than industries in which customers value other attributes more highly.

A is incorrect. Industries experiencing more intense rivalry among incumbent companies are characterized by undifferentiated products and high exit barriers.

B is incorrect. Industries experiencing more intense rivalry among incumbent companies are fragmented among many small competitors and they tend to have high fixed costs.

Introduction to Industry and Company Analysis
LOS g, f
Section 5.1.6

85 An industry characterized by rising volumes, improving profitability, falling prices, and relatively low competition among companies is *most likely* in which of the following life-cycle stages?

A Growth

B Mature

C Embryonic

A is correct. An industry in growth stage is characterized by rising volumes, improving profitability, falling prices, and relatively low competition among companies.

B is incorrect. In the mature stage there will be little or no growth and relatively stable demand for products.

C is incorrect. In the embryonic stage there will be slowing growth and high prices.

Introduction to Industry and Company Analysis
LOS h
Section 5.1.5

86 Which of the following statements is *most* accurate in an efficient market?

A Active strategies will lead to excess risk-adjusted portfolio returns.

B Securities market prices fully reflect their fundamental values.

C Securities market prices respond over time to changes in economic information.

B is correct. 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.

A is incorrect. In an efficient market, securities market prices reflect their fundamental values, so opportunities for active strategies to achieve excess risk adjusted returns may not exist.

C is incorrect. An efficient market is a market in which asset prices reflect information quickly, not over time.

Market Efficiency
LOS a
Section 2.1

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87 Which of the following situations will *most likely* promote an increase in market efficiency?

A An increase in arbitrage opportunities

B A decrease in trading activity

C An increase in information availability

C is correct. 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.

A is incorrect. Arbitrage is a set of transactions that produces riskless profits. Arbitrageurs are traders who engage in such trades to benefit from pricing discrepancies (inefficiencies) in markets. Such trading activity contributes to market efficiency. If arbitrage opportunities increase, it means that there are either more pricing discrepancies or fewer arbitrageurs (or both), and this situation will lead to a reduction in market efficiency.

B is incorrect. A decrease in trading activity can cause or accentuate other market imperfections that impede market efficiency.

Market Efficiency
LOS c
Section 2.3

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88 A trader is able to obtain persistent abnormal returns by adopting an investment strategy that purchases stocks that have recently experienced high returns. This strategy exploits a market-pricing anomaly *best* described as:

A data mining.

B momentum.

C the overreaction effect.

B is correct. A momentum anomaly occurs when securities that have experienced high short-term returns continue to generate higher returns in subsequent periods. Therefore, if a trader can obtain persistent abnormal returns by adopting an investment strategy that purchases stocks that have recently experienced high returns, then he or she is exploiting a momentum anomaly.

C is incorrect. The overreaction effect is a pricing anomaly that occurs when investors overreact to the release of unexpected public information, inflating (depressing) stock prices of companies releasing good (bad) information.

A is incorrect. Data mining is not a market anomaly but a type of process that could be used to discover statistically significant price patterns.

Market Efficiency
LOS f
Section 4.1

89 A market has the following limit orders standing on its book for a particular stock:

Buyer	Bid Size (# of shares)	Limit Price ($)	Seller	Offer Size (# of shares)	Limit Price ($)
1	500	18.5	1	200	20.2
2	300	18.9	2	300	20.35
3	400	19.2	3	400	20.5
4	200	20.1	4	100	20.65
5	100	20.15	5	200	20.7

If a trader submits an immediate-or-cancel limit buy order for 700 shares at a price of $20.50, the average price the trader would pay is *closest* to:

A $20.35.

B $20.58.

C $20.50.

A is correct. The limit buy order will be filled first with the most aggressively priced limit sell order and will be followed by filling with the higher priced limit sell orders that are needed up to and including the limit buy price until the order is filled.

$$\text{Average price} = [(200 \times \$20.20) + (300 \times \$20.35) + (200 \times \$20.50)]/700 = \$20.35.$$

C is incorrect. It simply uses the sell limit price that is exactly equal to the limit buy order.

B is incorrect. It starts filling the order with the highest limit sell price and moves downward.

$$\text{Average price} = [(200 \times \$20.70) + (100 \times \$20.65) + (400 \times \$20.50)]/700 = \$20.58$$

Market Organization and Structure
LOS h
Sections 6.1, 8.2.2.1

90 Which of the following is *most likely* a primary market transaction?

A A private placement of shares

B A market order sale of bonds

C The exercise of an exchange-traded call option

A is correct. Private placements qualify as primary market transactions because they are sales of securities by issuers directly to a small group of qualified investors.

B is incorrect. Market order sales take place in secondary markets.

C is incorrect. The exercise of an exchange-traded call option is a secondary market transaction involving the purchase by option owner of previously issued security.

Market Organization and Structure

LOS i

Section 7.2

91 A trader seeking to sell a very large block of stock for her client will *most likely* execute the trade in a(n):

A quote-driven market.

B order-driven market.

C brokered market.

C is correct. 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.

A is incorrect. In quote-driven markets (also called price-driven, dealer, or OTC markets) customers trade with dealers, and the instruments traded are mostly bonds, currencies, and spot commodities.

B is incorrect. An order-driven market follows an order matching system run by an exchange or a broker using rules to arrange trades submitted by traders.

Market Organization and Structure

LOS j

Section 8.2

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

A less price volatility than the underlying common shares.

B an opportunity to receive additional dividends if the company's profits exceed a pre-specified level.

C preference dividends that are fixed contractual obligations of the company.

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

B is incorrect. An opportunity to receive additional dividend if the company's profits exceed a pre-specified level is the benefit that accrues to the holders of participating preferred shares, not convertible preference shareholders.

C is incorrect. Preference dividends are fixed but, unlike interest payment on debt, they are not contractual obligations of the company.

Overview of Equity Securities
LOS b, e
Section 3.2

93 Which of the following statements regarding a commodity index is *most* accurate?

A Commodity index returns differ from the changes in the prices of their underlying commodities.

B Commodity indexes in the same markets will share similar risk and return profiles.

C Commodity indexes commonly use an equal weighting method.

A is correct. The performance of commodity indexes can be different from their underlying commodities because the indexes consist of futures contracts on the commodities rather than the actual commodities. Commodity index returns reflect the risk-free interest rate, the changes in future prices, and the roll yield.

C is incorrect. Commodity indexes do not have an obvious weighting mechanism; therefore, commodity index providers create their own weighting methods.

B is incorrect. Different weighting methods lead to different exposure to specific commodities and result in different risk and return profiles. Unlike commodity indexes, broad equity and fixed-income indexes that target the same markets share similar risk and return profiles.

Security Market Indexes
LOS j
Section 7.1

94 Which of the following products provides protection from inflation?

A Consols

B Linkers

C Floaters

B is correct. Linkers, also known as inflation-linked bonds, adjust coupon payments, principal payments, or both to protect investors from inflation risk.

A is incorrect because consols are bonds with no maturity (i.e., they are perpetuities).

C is incorrect because floaters are bonds whose coupon rates are tied to a reference rate such as Libor.

Fixed-Income Markets: Issuance, Trading, and Funding
LOS e
Section 4.3.3

95 A South Korean electronics company issued bonds denominated in US dollars in the United States and registered with the SEC. These bonds are *most likely* known as a:

A foreign bond.

B Eurobond.

C global bond.

A is correct. Bonds issued by entities that are incorporated in another country are called foreign bonds. Therefore, the bonds issued by a South Korean company in the United States are known as foreign bonds.

B is incorrect because Eurobonds are bonds issued internationally, outside the jurisdiction of any single country to bypass the legal, regulatory, and tax constraints imposed on bond issuers and investors. The bonds registered with the SEC are not classified as Eurobonds.

C is incorrect because global bonds are bonds that are issued simultaneously in the Eurobond market and in at least one domestic bond market.

Fixed-Income Securities: Defining Elements
LOS d
Section 3.2

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96 Consider two 10-year bonds, one that contains no embedded options and the other that gives its owner the right to convert the bond to a fixed number of shares of the issuer's common stock. The convertibility option in the second bond cannot be exercised for five years. The bonds are otherwise identical. Compared with the yield on the convertible bond, the yield on the option-free bond is *most likely*:

A the same.

B lower.

C higher.

C is correct. The convertibility option provides a benefit to the investor, who will accept a lower yield on the convertible bond compared with the option-free bond.

A is incorrect because the yield on the option-free bond will be higher.

B is incorrect because the yield on the option-free bond will be higher.

Fixed-Income Securities: Defining Elements
LOS f
Section 5.3

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97 What type of risk *most likely* affects an investor's ability to buy and sell bonds in the desired amounts and at the desired time?

A Market liquidity

B Spread

C Default

A is correct. 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.

B is incorrect because spread risk is the risk that spreads widen.

C is incorrect because default risk is the risk the borrower defaults.
Fundamentals of Credit Analysis
LOS a
Section 2

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98 In a securitization, the seller of the pool of securitized assets is the:

A trustee.

B special purpose entity.

C depositor.

C is correct. The collateral in a securitization is the pool of securitized assets from which cash flows will be generated. The seller of the collateral is the depositor, also referred to as the originator.

A is incorrect because the trustee is typically a financial institution that safeguards the assets, hold funds for bondholders until they are paid, and provides periodic information to the bondholders.

B is incorrect because the special purpose vehicle (SPV) is the issuer in the securitization.
Introduction to Asset-Backed Securities
LOS b
Section 3.1, 3.2

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99 Which of the following is *least likely* a feature of a credit card receivable ABS?

A An early amortization provision

B Amortizing collateral

C A lockout period

B is correct. A credit card receivable ABS is an example of an ABS with a non-amortizing collateral.

A is incorrect because a credit card receivable ABS may require early amortization of the principal if certain events occur. Such an early amortization provision would safeguard the credit quality of the issue.

C is incorrect because a credit card receivable ABS would typically have a lockout period during which the cash flow that is paid out to security holders is based only on finance charges collected and fees.
Introduction to Asset-Backed Securities
LOS h
Sections 7.2

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100 The market value of an 18-year zero-coupon bond with a maturity value of \$1,000 discounted at a 12% annual interest rate with semi-annual compounding is *closest* to:

A \$130.04.

B \$192.86.

C \$122.74.

C is correct. 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

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

A is incorrect because it uses the annual discount rate and the maturity in years rather than adjusting the discount rate and maturity for semi-annual periods.

B is incorrect because it uses the semi-annual coupons times the number of years divided by 1.12.

Introduction to Fixed-Income Valuation

LOS a

Section 2.1

101 An investor sells a bond at the quoted price of $98.00. In addition, she receives accrued interest of $4.40. The flat price of the bond is equal to the:

A par value plus accrued interest.

B agreed-on bond price excluding accrued interest.

C accrued interest plus the agreed-on bond price.

B is correct. The agreed-on bond price excluding accrued interest is referred to as the flat price.

A is incorrect because flat price is the agreed-upon bond price excluding accrued interest.

C is incorrect because flat price excludes accrued interest.

Introduction to Fixed-Income Valuation

LOS d

Section 3.1

102 A bond has a 10-year maturity, a $1,000 face value, and a 7% coupon rate. If the market requires a yield of 8% on similar bonds, it will *most likely* trade at a:

A discount.

B premium.

C discount or premium, depending on its duration.

A is correct. When the required yield is higher than the coupon rate, the bond will trade at a discount to par.

B is incorrect because a bond trades at a premium when the required yield is less than the coupon rate.

C is incorrect because a bond trades at a discount when the required yield is higher than the coupon rate.

Introduction to Fixed-Income Valuation

LOS e

Section 2.2

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

A a premium.

B a discount.

C par.

A is correct. A bond selling at a premium has a higher coupon rate and, all else being equal, bonds with higher coupon rates face higher reinvestment risk. The higher the coupon rate, the more dependent the bond's total dollar return will be on the reinvestment of the coupon payments in order to produce the yield to maturity at the time of purchase.

B is incorrect because, all else being equal, a bond selling at a discount has a lower coupon rate than a bond selling at a premium.

C is incorrect because, all else being equal, a bond selling at par has a lower coupon rate than a bond selling at a premium.

Understanding Fixed-Income Risk and Return
LOS a
Section 2

104 In a low interest rate environment, the effective duration of a callable bond relative to a comparable non-callable bond, will *most likely* be:

A higher.

B lower.

C the same.

B is correct. 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.

A is incorrect because in a falling interest rate environment the effective duration of a callable bond will be lower, not higher, than the effective duration of a comparable non-callable bond.

C is incorrect because in a falling interest rate environment the effective duration of a callable bond will be lower than the effective duration of a comparable non-callable bond.

Understanding Fixed-Income Risk and Return
LOS e
Section 3.3

105 A bond has a Macaulay duration of 6.0, modified duration of 6.5, and convexity of 50.25. If the bond's yield to maturity decreases by 50 bps, the expected percentage price change is *closest* to:

A 3.06%.

B 3.31%.

C 3.25%.

B is correct. The expected percentage price change for a bond can be is estimated as follows:

$\%\Delta P^{Full} \approx (-\text{AnnModDur} \times \Delta\text{Yield}) + [0.5 \times \text{AnnConvexity} \times (\Delta\text{Yield})^2]$

$\%\Delta P^{Full} \approx (-6.5 \times -0.005) + [0.5 \times 50.25 \times (-0.005)^2] = 3.313\%$

A is incorrect because it uses the Macaulay duration, as follows:

$(-6.0 \times -0.005) + [0.5 \times 50.25 \times (-0.005)^2] = 3.063\%$

C is incorrect because it ignores the convexity adjustment, as follows:

$(--6.5 \times -0.005) = 3.250\%$

Understanding Fixed-Income Risk and Return

LOS i

Section 3.6

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

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

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

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

B is correct. 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.

A is incorrect because while the duration gap is positive the investor is currently exposed to the risk of higher, not lower, interest rates.

C is incorrect because the duration gap is positive, not negative, implying that the investor is currently exposed to the risk of higher interest rates.

Understanding Fixed-Income Risk and Return

LOS k

Section 4.2

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107 What is the *most likely* reason why arbitrage will not completely eliminate all pricing discrepancies for derivatives?

A Differences in risk aversion

B Transaction costs

C Inaccurate forecasts

B is correct. Transaction costs may render an arbitrage strategy unprofitable and can therefore prevent precise convergence of prices.

A is incorrect. Differences in risk aversion are irrelevant for arbitrage because arbitrage transactions are riskless.

C is incorrect. No forecasts are needed in implementing an arbitrage position.

Basics of Derivative Pricing and Valuation

LOS a

Section 2.3.1.8

108 Over time, a forward contract *most likely* has variable:

A value and constant price.

B price and constant value.

C value and variable price.

A is correct. The price of a forward contract remains constant throughout its life. It is set as part of the contract specifications. The value varies with changes in the price of the underlying.

B is incorrect. The price is constant, but value varies with changes in the price of the underlying.

C is incorrect. The price is constant, but value varies with changes in the price of the underlying.

Basics of Derivative Pricing and Valuation
LOS b
Section 2.4

109 The underlying in a forward rate agreement is *most likely* a(n):

A growth rate of an equity index.

B interest rate.

C exchange rate.

B is correct. The underlying in a forward rate agreement is an interest rate.

A is incorrect. The underlying in a forward rate agreement is an interest rate.

C is incorrect. The underlying in a forward rate agreement is an interest rate.

Basics of Derivative Pricing and Valuation
LOS e
Section 3.1.4

110 Which of the following statements *best* describes a feature of an American option? Early exercise of an American:

A put option is optimal only if the underlying is dividend paying.

B call option is never optimal if the underlying is dividend paying.

C put option that is deep in the money may be optimal.

C is correct. For a deep-in-the-money put option, early exercise may be optimal because the additional upside is limited.

A is incorrect. The fact that the underlying is dividend paying does not justify early exercise in the case of a put option.

B is incorrect. Early exercise of a call option may be beneficial if a sufficiently high dividend can be captured.

Basics of Derivative Pricing and Valuation

LOS o
Section 4.3

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111 Which of the following derivatives is *least likely* to be classified as a contingent claim?

A A futures contract

B A call option contract

C A credit default swap

A is correct. A futures contract is classified as a forward commitment in which the buyer undertakes to purchase the underlying asset from the seller at a later date and at a price agreed on by the two parties when the contract is initiated.

B is incorrect. A call option contract is a contingent claim in which the buyer of the option has a right to purchase the underlying asset at a fixed price on or before a pre-specified expiration date.

C is incorrect. A credit default swap is a contingent claim in which the credit protection seller provides protection to the credit protection buyer against the credit risk of a third party.

Derivative Markets and Instruments
LOS b
Section 4.1.2

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112 A corporation issues five-year fixed-rate bonds. Its treasurer expects interest rates to decline for all maturities for at least the next year. She enters into a one-year agreement with a bank to receive quarterly fixed-rate payments and to make payments based on floating rates benchmarked on three-month Libor. This agreement is *best* described as a:

A futures contract.

B forward contract.

C swap.

C is correct. 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.

A is incorrect. A forward contract includes one payment only. The swap described has a series of four quarterly payments.

B is incorrect. The instrument described is a swap.

Derivative Markets and Instruments
LOS c
Section 4.1

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113 In an efficient market, it is *more likely* that fundamental value will be reflected in the:

A underlying spot market before the derivative market.

B derivatives market and the underlying spot market at the same time.

C derivatives market before the underlying spot market.

C is correct. In an efficient market, the derivatives market is more likely to reflect fundamental value, even if only for a short period, before the underlying spot market because derivatives contracts require less capital, have lower transaction costs, and are easier to sell short.

A is incorrect. In an efficient market, the derivatives market (not the underlying spot market) is more likely to reflect fundamental value because derivatives contracts require less capital, have lower transaction costs, and are easier to sell short.

B is incorrect. In an efficient market, the derivatives market is more likely to reflect fundamental value before the underlying spot market because derivatives contracts require less capital, have lower transaction costs, and are easier to sell short.

Derivative Markets and Instruments

LOS d

Section 5.4

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114 Relative to traditional investments, alternative investments are *most likely* to be characterized by higher:

A fees.

B liquidity.

C transparency.

A is correct. Alternative investments are often characterized by high fees.

B is incorrect. Liquidity tends to be comparably low in alternative investments.

C is incorrect. Transparency tends to be comparably low in alternative investments.

Introduction to Alternative Investments

LOS a

Section 2

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115 In the context of venture capital financing, seed-stage financing *most likely* supports:

A initial commercial production and sales.

B product development and/or marketing efforts.

C transformation of an idea into a business plan.

B is correct. Support of product development and/or marketing efforts takes place during seed-stage financing.

A is incorrect. Support of initial commercial production and sales takes place during early stage financing.

C is incorrect. Support in the transformation of an idea into a business plan takes place during angel investing.

Introduction to Alternative Investments

LOS b

Section 4.2.2

116 Concentrated portfolio strategies are attractive because of their:

A potential to generate alpha.

B ability to track market indices.

C low risk.

A is correct. Concentrated portfolio strategies focus on only a few securities, strategies, or managers. This focus reduces diversification but may enable investors to achieve alpha.

B is incorrect. Portfolio concentration makes it harder to track market indexes.

C is incorrect. Portfolio concentration increases risk.

Introduction to Alternative Investments

LOS c

Section 2.2

117 Compared with other investment asset classes, an investment in real estate is *least likely* to be characterized by:

A homogeneity.

B fixed location.

C basic indivisibility.

A is correct. Because no two properties are identical, homogeneity is not a feature of an investment in real estate.

B is incorrect. A fixed location is an attribute of a real estate investment.

C is incorrect. Basic indivisibility is a unique feature of real estate investing.

Introduction to Alternative Investments

LOS d

Section 5

118 One hedge fund strategy that involves simultaneously holding short and long positions in common stock is *most likely*:

A volatility.

B distressed/restructuring.

C quantitative directional.

C is correct. Quantitative directional is an equity strategy that uses technical analysis to identify over- and underpriced securities, buy the underpriced ones, and short the overpriced ones.

A is incorrect because volatility is a relative value strategy that uses options to profit based on expectations that market volatility will rise or fall.

B is incorrect because distressed/restructuring is an event-driven strategy that focuses primarily on fixed-income securities, although it may buy preferred stock and short common stock of a company.

Introduction to Alternative Investments
LOS d
Section 3.1

119 A private equity firm sells a portfolio company to a buyer that is active in the same industry as the portfolio company. This transaction is best described as a(n):

A trade sale.

B secondary sale.

C initial public offering.

A is correct. A trade sale is the sale of a portfolio company to a strategic buyer, such as a company that is active in the same industry.

B is incorrect. A secondary sale is a sale to another private equity firm.

C is incorrect. An initial public offering involves the sale of shares to public investors.

Introduction to Alternative Investments
LOS d
Section 4.2.4

120 A hedge fund limited partnership agreement describes the general partner's total fees for each year as follows: The general partner will measure the fair value of the fund's assets at the beginning of the year (net of fees from the previous year) and the fair value of the fund's assets at the end of the year. The general partner will receive 15% of any increase in fair value in excess of the 1-year US Treasury yield at the beginning of the year. This fee structure *most likely* includes a:

A hard hurdle rate.

B management fee.

C high-water mark provision.

A is correct. In order for the general partner to earn its incentive fee, the return on the fund must exceed the Treasury yield (which is a hurdle rate), and the incentive fee is based only on the return in excess of the hurdle rate, so it is a hard hurdle rate. The general partner doesn't earn any fee regardless of performance, so there is no management fee. There is no mention of the fund's value needing to exceed its historical maximum value, so there is no high-water mark.

B is incorrect because there is no fixed management fee (one that does not depend on performance).

C is incorrect because there is no requirement that the fund's value exceed its previous maximum.

Introduction to Alternative Investments
LOS e
Section 3.3