

# **FinQuiz.com**

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**Level I of CFA<sup>®</sup> Program**

**1<sup>st</sup> Mock Exam**

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**Revision 1**

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**FinQuiz.com – 1<sup>st</sup> Mock Exam 2019 (AM Session)**

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	Total	180

**Questions 1 through 18 relate to Ethical and Professional Standards**

1. Overconfidence bias makes adherence to ethical conduct difficult as investment professionals are more likely to overestimate the morality of their:
  - A. clients.
  - B. industry.
  - C. own behavior.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 1, LOS-c.*

One of the challenges that makes adherence to ethical conduct difficult is ‘Overconfidence Bias’, a common behavioral bias where people tend to believe that they are ethical people and their ethical standards are higher than average. As a result of overconfidence bias, investment professionals fail to consider important inputs and variables needed to form the best decision from an ethical perspective.

2. Alonzo Myers manages accounts at GRTY Securities. Jerry Reed, one of his clients, e-mailed Myers to buy 300 shares in the IPO of JJKS Corp’s stock. Few days later, despite being a hot issue, Myers succeeded prorating 500 shares of JJKS Corp. for his clients. After purchasing 500 shares for his clients and 300 shares for Reed as per request, he purchased remaining 200 shares for his wife. Myers:
  - A. did not violate the standards by purchasing 200 shares for his wife and 300 shares for Reed.
  - B. violated the standards by purchasing 200 shares for his wife and only 300 shares for Reed.
  - C. violated the standards by purchasing 200 shares for his wife but is in compliance for purchasing 300 shares for Reed as per his request.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

In context of IPOs member or candidates are prohibited from purchasing securities for their own benefit and their duty of loyalty and fairness to clients

cannot be overridden by client consent to patently unfair allocation procedure. If the IPO is suitable for clients and is a hot issue he should allocate shares to all his clients on a pro-rata basis.

3. McKinney Alpha is an accredited research firm that only hires experienced and competent analysts offering them training and financial courses from time to time. The firm allows analysts to either prepare their own research or rely on secondary sources. Tyler Klein, an analyst at McKinney uses a research report prepared at Gemma Brokerage. If Klein will use that report, he will:
- A. violate Standard I-C ‘Misrepresentation’ by relying on work not prepared by himself for his clients.
  - B. violate Standard IV-A ‘Loyalty to employers’ as he is not allowed to use the report prepared by Gemma Brokerage.
  - C. not violate any standard if he makes reasonable efforts to determine that research is sound and uses the information in good faith.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

Klein will violate Standard IV-A ‘Loyalty to employers’ because the firm only allows secondary research (research prepared by another employee at the same firm). Using a report prepared by another firm is considered third party research, which is not allowed by McKinney Alpha.

4. By complying with GIPS standards firms cannot:
- A. eliminate the need for in-depth due diligence on the part of the investor.
  - B. participate in competitive bids against other compliant firms throughout the world.
  - C. assure prospective clients that the reported historical track record is complete and fairly presented.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 4, LOS-a.*

By complying with GIPS standards, firms:

- participate in competitive bids against other compliant firms throughout the world.
- assure prospective clients that the reported historical track record is complete and fairly presented.
- strengthen its internal control over performance related processes and procedures.

However, GIPS standards certainly do not eliminate the need for in-depth due diligence on the part of the investor.

5. In conversation with a prospective client, a portfolio manager stated “I cannot guarantee that you will earn 18% on equities this year but I can provide you a range within which your return will lie. My range is quite popular among my clients and has a history of ten years. Each year, I develop the range by using financial models, economic forecasts and accredited reports. Based on the CFA Institute Standards, the portfolio manager:
- A. did not violate any standard.
  - B. violated standard I-C ‘Misrepresentation’.
  - C. violated standard III-D ‘Performance Presentation’.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

The portfolio manager violated standard I-C ‘Misrepresentation’ by providing a range. The standards prohibit manager from guaranteeing clients any specific return or even a range. Equity investments contain some elements of risks that make their returns inherently unpredictable. Providing a range is misleading to investors.

6. Eleanor Chavez, CFA is a senior analyst at W&W Securities (W&WS) and is responsible for managing the High Beta Mutual Fund (HBMF). Curtis Fowler, aged 56 and dependent on his portfolio returns, is W&WS’s client. His portfolio will now be managed by Chavez, who has been asked to invest 20% of his portfolio funds in HBMF. Chavez fills the request forms and immediately purchases shares of HBMF for Fowler. Is Chavez in compliance with codes and

standards, and if not, what should be the recommended course of action for Chavez?

- A. Yes, she is in compliance with codes and standards.
- B. No, she should consult Fowler’s existing investment policy statement (IPS) and should judge the suitability of his investments in the context of his total portfolio.
- C. No, she should make reasonable inquiry about Fowler’s risk and return objectives and financial constraints prior to taking investment action requested by Fowler.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

According to Standard III-C ‘Suitability’, when members and candidates are responsible for managing a portfolio to a specific mandate, strategy or style they are not responsible for determining the suitability of the fund as an investment for the investors who may be purchasing shares.

7. Gilbert Love worked as financial analyst at Milton Securities. During his employment at Milton, Love covered Indigo Corp and developed detailed financial models, assumptions and supporting reports. When Milton switched his job, his new employer assigned him to analyze Indigo Corp. Milton developed a new model with improved assumptions and specifications and re-created the supporting records by gathering data from the covered company. Has Milton violated any CFA Institute Code and Standards?
- A. No, he is in compliance with the Code and Standards.
  - B. Yes, he has violated Standard V-C ‘Record Retention’ by re-creating the supporting records.
  - C. Yes, he violated ‘Misrepresentation’ and ‘Record Retention’ by developing the model and re-creating the supporting records for Indigo Corp.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

Milton did not violate any CFA Institute code or standard because he developed a new model and re-created supporting records by directly gathering information from Indigo Corp.

8. According to Standard II-A ‘Material Non-Public Information’, if a member or candidate determines that information is material he should make reasonable efforts to:
- A. achieve public dissemination of the information.
  - B. alter current investment recommendations for clients.
  - C. protect information from those who can possibly act on that information.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-c.*

If a member or candidate determines that information is material, the member or candidate should make reasonable efforts to achieve public dissemination of the information.

9. Lauren Sims, marketing director of Karma Advisors, planned a brief performance presentation in five different U.S. states where majority of the firm’s clients are located, in celebration of Karma’s five years of success. In his presentation, Sims clearly includes references to the information presented and also prepared a detailed information report to support his brief presentation. At the conclusion, Sims provided the report only to the clients who requested it. By failing to provide the report to all the clients who attended the session, Sims:
- A. violated Standard III-B ‘Fair Dealing’
  - B. violated Standard III-D ‘Performance Presentation’.
  - C. did not violate any CFA Institute codes and standards.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

According to Standard III-D ‘Performance Presentation’ if the performance information presented by the member or candidate is brief, the member of candidate must make available to client and prospects on request the detailed information supporting the communication. Best practice dictates that the brief presentation include a reference to the limited nature of the information provided.

10. Mathew Chambers manages individual accounts, including his father's, at Harvey Securities. During a Sunday lunch at a restaurant with his friend Neil Rojas, Chambers noticed the directors of Navarro Motors sitting at the adjacent table. Rojas stated, "I believe Navarro has hired a new CEO as the firm is undertaking many positive amendments in its production process". On Monday Chambers noticed a \$1 increase in Navarro's share price and purchased 500 shares for his father's account. Chambers *least likely* violated:
- A. Standard VI-B 'Priority of Transactions'.
  - B. Standard II-A 'Material Non-public Information'.
  - C. Standard V-A 'Diligence and Reasonable Basis'.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

An opinion of his friend without actual knowledge does not make the information material. Chambers violated Standard V-A 'Diligence and Reasonable Basis' because he purchased the stocks of Navarro without appropriate research and investigation. Chambers also violated Standard VI-B 'Priority of Transactions' by purchasing stocks for his father's account only and treating the account differently from his other clients' accounts.

11. Blanco Shell Investments (BSI) is a small family owned investment bank and its shares are relatively illiquid. In a casual meeting Brett Palmer, managing director at BSI, told his friend, Leon Fox, that BSI is going to earn substantial profits in its commodities business. In the next few days Fox purchases BSI shares while Palmer disposes his position in BSI and switches his job. Two months later BSI announces huge losses in its commodities business and the share price decreases by \$2. Palmer has violated the CFA Institute Standards of Professional Conduct concerning
- A. 'Market Manipulation' only.
  - B. 'Material Nonpublic Information' only
  - C. 'Market Manipulation' and 'Material Nonpublic Information'.



**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

Palmer has violated ‘Market Manipulation’ by sharing false and misleading information with Fox.

12. After 5-years of service with Jacob Securities as a financial planner, Shane Alvarado planned to start his own practice in his hometown. He informed his employer through email three days before starting his independent practice. The employer was on a business trip for a week and on his return he accepted his resignation. Alvarado always maintained his personal records related to training programs that he conducted at Jacob Securities, and he used that material in his new project. Alvarado:
- A. is in compliance with standards regarding timely notification and using his own personal records.
  - B. violated the standards by rendering services without receiving consent from his employer and by using records.
  - C. violated the standards by using records but is in compliance with standards in notifying his employer regarding his independent practice.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

Alvarado violated the standard IV-A ‘Loyalty’. Members and candidates should not render services until they receive consent from their employer to all of the terms of the arrangement. All the work performed on behalf of the firm is the property of the firm and should be erased or returned to the employer unless the employer gives permission to keep those records after the cessation of employment.

13. During the morning section of the CFA Level 1 exam, when the proctor made the final 5 minutes announcement, Enrique, a candidate next to Rachael noticed and told Rachael that she was not filling her answers on the sheet provided. Rachael immediately started transferring answers on to the answer sheet. When the proctor

made the final announcement Rachael succeeded filling 100 circles and by the time proctor reached at her table, she had only 5 circles left to fill. Rachael instantly handed her sheet to the proctor. Is Rachael or Enrique in violation of the standard relating to conduct as members and candidates in the CFA Program?

- A. Only Enrique is in violation.
- B. Only Rachael is in violation.
- C. Both Rachael and Enrique are in violation.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

Both Enrique and Rachael violated the Standard VII-A ‘Conduct as members and candidates in the CFA Program’ Enrique violated the standard by assisting Rachael on the CFA examination. Rachael disregarded the rules and regulations related to the CFA program by writing after the final announcement was made.

14. Dan Fisher is an investment manager at Rotterdam Securities and often uses Topaz brokerage services for his clients. Corey Foster, Fisher’s client, has directed him to use the services of Luna Brokerage House for him. Fisher believes that Topaz offers best price and better research reports compared to Luna. The best course of action for Fisher is to use the services of:
- A. Topaz for all of his clients as he is obligated to seek best price and best execution.
  - B. Luna for Foster and should disclose to him that he may not be getting best execution.
  - C. Topaz for all his clients as brokerage commission is the asset of the Rotterdam and will be used to maximize the value of client’s portfolio.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

Brokerage commission is an asset of the client and is used to benefit the client. Although members and candidates are obligated to seek best price and best execution, in the case of client directed brokerage arrangements, the client directs the manager to use services of a specific broker. The member or candidate should disclose to the client if the member or candidate believes that the brokerage is not offering best price and/or execution.

15. Reginald Fuller manages institutional portfolios on behalf of BDY Advisors. Fuller also manages an account of a trust company named SOTO Trust. The trust offered Fuller a \$50,000 cash gift if he succeeded in achieving a 20% return this year. The best practice for Fuller includes:
- A. refusing the offer of SOTO trust to avoid a conflict of interest with his employer.
  - B. accepting the offer and achieving the target without compromising his objectivity towards other clients.
  - C. making an immediate written report to his employer specifying the \$50,000 cash offer proposed by the trust

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 3, LOS-b.*

According to the recommendations of Standard IV-B ‘Additional Compensation Arrangements’, members and candidates should make an immediate written report to their employer specifying any compensation they propose to receive for services in addition to the compensation or benefits received from their employer.

16. GIPS standards *least likely* resolve misleading practices related to:
- A. survivorship bias.
  - B. varying time periods.
  - C. analyst financial statement adjustments.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 4, LOS-a.*

Misleading practices resolved by following GIPS standards include (but are not limited to):

- survivorship bias,
  - varying time periods and
  - representative accounts.
17. Sullivan Investments, an asset management firm, complied with the GIPS standards on 1 January 2006. Can Sullivan link its non-GIPS compliance performance for periods beginning on or after 1 January 2000 with its GIPS compliance performance?
- A. No.
  - B. Yes.
  - C. Only if it discloses periods of non-compliance.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 5, LOS-b.*

Firms must not link its non-GIPS compliant performance for periods beginning on or after 1 January 2000 to GIPS compliant performance.

Firms may link non-GIPS compliant performance to their GIPS compliant performance provided that only GIPS compliant performance is presented for periods after 1 January 2000 and the firm discloses the periods of non-compliance.

18. Which of the following statements is *most likely* correct regarding the major sections of GIPS standards?
- A. According to Section 4 ‘Disclosures’, firms are required to make negative assurance disclosures.
  - B. According to Section 3 ‘Composite Construction’, a composite return is the asset weighted average of the performance of all portfolios in the composite.
  - C. According to section 5 ‘Presentation and Reporting’, firms cannot include in GIPS-compliant presentations information not addressed by the GIPS standards.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 1, Reading 5, LOS-d.*

According to Section 4 ‘Disclosures’, firms are not required to make negative assurance disclosures i.e. if the firm does not use leverage, no disclosure of the use of leverage is required.

According to Section 3 ‘Composite Construction’, the composite return is the asset-weighted average of the performance of all portfolios in the composite.

According to section 5 ‘Presentation and Reporting’, when appropriate, firms have the responsibility to include in GIPS-compliant presentations information not addressed by the GIPS standards.

**Questions 19 through 30 relate to Quantitative Methods**

19. Three friends Sam, Patricia and Robert will receive equal dollar amounts in two years from their maturing investments, however, they invested in such a way that:
- the interest rate offered to Patricia and Sam is same but compounding for Patricia is monthly and for Sam is quarterly.
  - compounding for Robert and Patricia is same but the interest rate offered to Robert is higher.

The present value of whose investment would be the lowest?

- A. Sam.
- B. Robert.
- C. Patricia.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 2, Reading 6, LOS-d.*

For a given discount rates, the greater the number of periods the smaller will be the present value. (The present value of Patricia's will be lower than Sam's).

For a given number of periods, the higher the discount rate the smaller will be the present value. (The present value of Robert's will be lower than Patricia's).

20. The efficiency of an unbiased estimator is measured by its:
- A. variance.
  - B. sample size.
  - C. mean value.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 1, Study Session 3, Reading 11, LOS-g.*

Efficiency of an unbiased estimator is measured by its variance. An unbiased estimator is efficient if no other unbiased estimator of the same parameter has a sampling distribution with smaller variance.

21. The investment performance of a fund for the year 2013 is as follows:

- On 1 January 2013, the fund had market value of \$70 million.
- The holding period return for the fund from 1 January to 30 June was 18%.
- On 1 July 2013 the fund received an additional \$35 million.
- On 31 December 2013 the fund received total dividends of \$8 million.
- The fund’s market value on 31 December 2013 including \$8 million dividends was \$134 million.

The time-weighted return computed by the manager is *closest* to:

- A. 12.44%
- B. 13.95%.
- C. 34.46%.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 2, Reading 7, LOS-d.*

*From 1 January to 30 June:*

Fund’s beginning market value	= \$70 million
Ending market value of the fund	= \$82.6 million (1.18 x \$70 million)
Fund’s holding period return	= 18%

*From 1 July to 31 December:*

Additional investments	= \$35 million
Beginning market value	= \$117.6 million (\$82.6 m + \$35 m)
Holding period return	= $\frac{134-117.6}{117.6} = 13.95\%$

Fund’s time weighted rate of return = 34.46% (1.18 x 1.1395)

22. An analyst calculated the expected value of Howe Inc.'s EPS as \$5.91 based on the probability distribution of Howe's EPS for the current fiscal year.

Probability distribution for Howe's EPS	
Probability	EPS (\$)
0.12	7.75
0.45	6.20
0.33	5.50
0.10	3.75

The standard deviation of the Howe's EPS for the current fiscal year is *closest* to:

- A. 0.9662.
- B. 0.9829.
- C. 2.8816.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 2, Reading 9, LOS-1.*

$$\sigma^2 = \sum_{i=1}^n (\text{Prob.}) \times (X - E(X))^2$$

$$\sigma^2 = (0.12) \times (7.75 - 5.91)^2 + (0.45) \times (6.20 - 5.91)^2 + (0.33) \times (5.50 - 5.91)^2 + (0.10) \times (3.75 - 5.91)^2$$

$$\text{S.D. } \sigma = \sqrt{\sigma^2} = 0.9829$$



23. A professor is practicing a new method of teaching and is unsure about its impact on students' performance. His students generally maintained an average 3.2 GPA throughout the semester. He selects a sample of 25 students with a mean GPA of 3.0 and standard deviation of 0.62. The professor is concerned whether the sample results are consistent with the average GPA results of 3.2.

**Exhibit: T-Table**

<i>df.</i>	<i>p</i> = 0.05	<i>p</i> = 0.10
24	1.711	1.318
25	1.708	1.316

Determine whether the null hypothesis is rejected or not at the 0.10 level of significance.

- A. The null hypothesis is rejected as the t-value of 1.6129 is > 1.318 at the 0.10 significance level.
- B. The null hypothesis is not rejected as -1.6129 does not satisfy either  $t > 1.711$  or  $t < -1.711$ .
- C. The null hypothesis is not rejected as the calculated t value of 0.322 is less than 1.318 at the 0.10 significance level.

**Correct Answer: B**

*Reference: CFA Level I, Volume 1, Study Session 3, Reading 12, LOS-b.*

$$H_0 : \mu = 3.2 \text{ versus } H_a : \mu \neq 3.2$$

This is a two tailed test therefore we will use 0.05 column and 24 degrees of freedom.

$$t_{24} = \frac{3-3.2}{\frac{0.62}{\sqrt{25}}} = -1.6129$$

-1.6129 does not satisfy either  $t > 1.711$  or  $t < -1.711$  and we do not reject the null hypothesis.

24. An analyst gathered the following information about return distributions of two portfolios.

	Kurtosis	Skewness
Portfolio A	2.5	-3.7
Portfolio B	1.3	+4.2

Which of the following statements is *most likely* correct regarding portfolio A and B?

- A. Portfolio A is more peaked than normal distribution.
- B. For portfolio B, mean value is higher than median value.
- C. Distribution of portfolio A has frequent small losses and few large gains.

**Correct Answer: B**

*Reference: CFA Level I, Volume 1, Study Session 2, Reading 8, LOS - j & k.*

Option B is correct.

Portfolio B is positively skewed. A distribution with frequent small losses and few large gains has positive skew (long tail on the right side). If a distribution is positively skewed with mean greater than its median, then more than half of its deviations from the mean are negative and less than half are positive.

Portfolio A is less peaked (platykurtic) than normal distribution and is negatively skewed.

25. Which of the following *least* accurately outlines a property of the normal distribution function? It:

- A. has a symmetrical shape.
- B. has a skewness of 0 and kurtosis of 3.
- C. is completely described by using variance and standard deviation of returns.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 3, Reading 10, LOS j*

C is correct. The normal distribution is completely described by two parameters, the mean and variance of returns. It can also be described using the mean and standard deviation of returns.

The normal distribution is characterized by a symmetrical shape.

A normal distribution function is characterized by a skewness of 0 and kurtosis of 3.

26. Which of the following type of stock analysis relies on information that is external to the market in an attempt to evaluate a security's value relative to its current price.
- A. Technical analysis
  - B. Fundamental analysis
  - C. Relative strength index

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 1, Study Session 2, Reading 13, LOS-a.*

Option B is correct. Fundamental analysis relies on information that is external to the market (e.g. economic data, company financial information) in an attempt to evaluate the security's value relative to its current price.

Technical analysis relies primarily on information expressed through the interaction of price and volume. Relative strength index is a type of technical analysis.

27. Which of the following *best* describes the reason for choosing the NPV rule over the IRR rule when dealing with mutually exclusive projects? NPV rankings:
- A. assumes reinvestment at opportunity cost of capital.
  - B. are not affected by external interest rates or discount rates.
  - C. assumes that cash flows are reinvested at internal rate of return.

**Correct Answer: A**

*Reference*

*CFA Level I, Volume 1, Study Session 2, Reading 7, LOS-b.*

NPV rule is based on external market determined discount rates because it assumes reinvestment at opportunity cost of capital.

The NPV rule's assumption about reinvestment rates is more realistic and more economically relevant because it incorporates market determined opportunity cost of capital as a discount rate.

IRR assumes that cash flows are reinvested at IRR and thus IRR rankings are not affected by any external interest rate or discount rate.

38. A lognormal distribution:

- A. is bounded below by 1 and has a long right tail.
- B. is not completely described by two parameters i.e. the mean and the variance.
- C. describes a stock price whose continuously compounded returns follow a normal distribution.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 3, Reading 10, LOS-o.*

A lognormal distribution:

- is bounded below by 0 and has long right tail.
- is completely described by two parameters i.e. the mean and the variance like normal distribution.
- describes a stock price whose continuously compounded returns follow a normal distribution.

29. The type of chart drawn on a grid, which consists of column X's alternating with column O's and does not represent time or volume is *most likely* the:
- A. bar chart.
  - B. candlestick chart.
  - C. point and figure chart.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 3, Reading 13, LOS-b.*

Point and figure charts are always drawn on graph paper, consist of columns X's alternating with column of O's and neither time nor volume is plotted on the graph.

30. Which of the following statements is *most likely* correct regarding parametric and non-parametric tests?
- A. Parametric tests are relatively unaffected by violations of assumptions.
  - B. In a parametric test, observations are converted into ranks according to their magnitude.
  - C. Nonparametric tests are considered distribution-free methods because they do not rely on any underlying distribution assumption.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 1, Study Session 3, Reading 12, LOS-k.*

- Parametric tests are relatively unaffected by violations of assumptions.
- In nonparametric tests, generally observations are converted into ranks according to their magnitude.
- Nonparametric tests are considered distribution-free methods because they do not rely on any underlying distribution assumption.

**Questions 31 through 42 relate to Economics**

31. Under perfect competition, a firm:
- A. is a price taker at any quantity supplied to the market.
  - B. breaks even when marginal revenue equals average variable cost.
  - C. should shut down production when marginal revenue is less than average fixed cost.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 2, Study Session 4, Reading 14, LOS-i.*

Option A is correct. Under perfect competition, a firm is a price taker at any quantity supplied to the market.

Option B & C are incorrect. Under perfect competition, a firm breaks even when marginal revenue equals average total cost. A firm should shut down production when marginal revenue is less than average variable cost.

32. An analyst gathered the following national data (in millions of U.S dollars) for a country for the year 2013.

**Exhibit:**

Consumer spending (m)	\$461,580	Personal disposable income	\$555,790
Government spending	\$392,676	Interest paid by consumers	\$13,400
Personal Income	\$906,230	Consumer transfers to foreigners	\$1,500

Using the data provided in exhibit 1, the household saving (in millions) is *closest* to:

- A. \$37,074.
- B. \$68,904.
- C. \$79,310.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 2, Study Session 5, Reading 16, LOS-d.*

Household saving = Personal disposable income – (consumption expenditures + interest paid by consumers + personal transfer payments to foreigners)

$$\begin{aligned} \text{Household saving} &= \$555,790 - (\$461,580 + \$13,400 + \$1,500) \\ &= \$79,310. \end{aligned}$$

33. Which of the following is *most likely* common among the assumptions of the Ricardian model and Heckscher-Ohlin model?
- A. Labor is a variable factor of production.
  - B. Capital is not a variable factor of production.
  - C. There are homogenous products and homogenous inputs.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 2, Study Session 6, Reading 19, LOS-d.*

Ricardian model assumes labor is a variable factor of production.  
Heckscher-Ohlin model assumes labor and capital are variable factors of production.

34. In 2016, a firm earned \$500,000 for selling 1,000 units. However, if 1,500 units were sold, revenue would be total \$720,000. The marginal revenue per unit associated with selling 1,500 units instead 1,000 units would be *closest* to:
- A. \$440
  - B. \$480
  - C. \$500

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 2, Study Session 4, Reading 14, LOS-e.*

$$\text{Marginal revenue} = \frac{\Delta \text{ in } TR}{\Delta \text{ in } Q} = \frac{\$720,000 - \$500,000}{1,500 - 1,000} = \frac{\$220,000}{500} = \$440$$

35. Aggregate demand (AD) curve will be flatter if:
- A. saving is highly sensitive to income.
  - B. investment expenditure is highly sensitive to interest rates.
  - C. money demand is highly sensitive to income and interest rates.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 2, Study Session 5, Reading 16, LOS-i.*

The AD curve will be flatter if:

- Investment expenditure is **highly sensitive** to interest rates.
  - Saving is **insensitive** to income.
  - Money demand is **insensitive** to income and interest rates.
36. Which of the following indicator measures the price of the basket of goods and services produced within an economy in a given year?
- A. GDP deflator.
  - B. Producer price index.
  - C. Consumer price index.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 2, Study Session 4, Reading 17, LOS-i.*

GDP deflator measures the price of the basket of goods and services produced within an economy in given year.



37. Which of the following is *least likely* a consequence of a period of hyperinflation?
- A. Too much money in circulation.
  - B. Reduced supply of money but increased velocity of money.
  - C. People are eager to change their cash into real goods.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 2, Study Session 5, Reading 17, LOS-e.*

Hyper inflation is a result of too much money in circulation i.e. increased velocity of money. During hyperinflation people are eager to change their cash into real goods because prices are rising very fast.

38. To determine the impact of changes in exchange rates on trade balance, the ‘absorption approach’ *most likely* exhibits the:
- A. effect of changing the relative price of domestic and foreign goods.
  - B. effect of exchange rates on aggregate expenditure or saving decisions.
  - C. microeconomic view of the relationship between exchange rates and trade balance.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 2, Study Session 6, Reading 20, LOS-j.*

The impact of changes in exchange rates on the trade balance can be analyzed through two different approaches:

- i. Elasticities approach
- ii. Absorption approach.

The **Absorption approach** focuses on the impact of exchange rates on aggregate expenditure/savings decisions.

The **Elasticities approach** focuses on the effect of changing the relative price of domestic and foreign goods. Thus it exhibits a microeconomic view of the relationship between exchange rates and trade balance.

39. Over the last week, the Japanese yen has appreciated 15.7% against pound sterling (GBP). The depreciation of GBP against the Japanese yen will be *closest* to:
- A. 14.4%
  - B. 15.7%.
  - C. 18.6%

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 2, Study Session 4, Reading 20, LOS-c.*

The depreciation of GBP will simply be the inverse of the 15% appreciation of the Japanese yen. In this case,  $\left[\frac{1}{(1-0.157)}\right] - 1 = 18.62\%$

40. Leading economic indicators (LEI) are variables that:
- A. change before nominal GDP of economy changes.
  - B. provide information regarding economy's past condition.
  - C. are useful for predicting economy's near-term future state.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 2, Study Session 5, Reading 17, LOS-i.*

Leading indicators are variables that change before real GDP changes. They are useful for predicting the economy’s future state, usually near-term.

41. Which of the following characteristics *most likely* demonstrates that the firm is operating in monopolistic competition?

	<b>Entry Barriers</b>	<b>Sellers</b>	<b>Long-run profits</b>
A.	Low	Many	None
B.	High	Few	Positive
C.	Low	Few	None

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 2, Study Session 4, Reading 15, LOS-a.*

Monopolistic competition is characterized by:

- low barriers to entry
- many sellers
- zero long-run profit

42. To deal with short-run stabilization, as compared to monetary policy, fiscal policy is *most likely*:

- A. less effective as it is very time consuming.
- B. more effective as it is easy to implement.
- C. equally effective as both policies work well in combination.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 2, Study Session 5, Reading 18, LOS-s.*

Fiscal policy is less effective than monetary policy to deal with short-run stabilization fiscal policy as it is very time consuming to implement and it is politically easier to loosen fiscal policy than to tighten it.

**Questions 43 through 60 relate to Financial Reporting and Analysis**

43. On 1<sup>st</sup> January 2011, Arnold Inc. purchases a machine for \$325,000 and immediately leases the machine through a direct finance lease that requires five annual payments of \$80,498 starting from 1<sup>st</sup> January 2011. The carrying amount is equal to its purchase price and the relevant discount rate is 12%.

On 1<sup>st</sup> January 2012, the reduction in lease receivable is *closest* to:

- A. \$51,158.
- B. \$79,720.
- C. \$112,000.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 3, Study Session 9, Reading 31, LOS-h.*

Reduction in lease receivable each year  
= Annual lease payment less Accrued interest

**At 1<sup>st</sup> January 2011**

Reduction in lease receivable:  
= \$80,498 – 0  
= \$80,498

Value of lease receivable:  
= \$325,000 – 80,498  
= \$244,502

**At 1<sup>st</sup> January 2012**

Reduction in lease receivable  
= \$80,498 – (\$244,502 x 12%)  
= \$51,158

Value of lease receivable  
= \$244,502 – \$51,158  
= \$193,344.

44. DCT Inc. sells an asset with a historical acquisition cost of \$7.8 million and an accumulated depreciation of \$1.6 million and reports a loss on the sale of \$0.5 million. The sale price of the asset is *closest* to:
- A. \$5.7 million.
  - B. \$6.7 million
  - C. \$7.3 million.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 3, Study Session 9, Reading 29, LOS-l.*

Gain or Loss on sale = Sale Price less carrying amount

Carrying Amount = Historical cost less accumulated depreciation

By rearranging the above equation:

Sale Price = \$7.8 million – \$1.6 million – \$0.5 million = \$5.7 million

45. Which of the following statements is *most likely* correct regarding the audit of financial statements?
- A. Disclaimer of opinion occurs when an auditor issues an opinion despite scope limitations.
  - B. When an auditor has concerns regarding some unreported pending contingent liabilities he might issue a qualified opinion.
  - C. Auditors can provide absolute assurance about the accuracy and precision of financial statements if the opinion is unqualified.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 3, Study Session 7, Reading 23, LOS-d.*

- Independent auditors **cannot** provide an absolute assurance about the accuracy and precision of financial statements even if the opinion is unqualified.
- An auditor might issue a qualified opinion when he has concerns regarding:
  - i. going concern assumption of the company.
  - ii. some unreported pending contingent liabilities.
  - iii. valuation of certain items on the balance sheet

- Disclaimer of opinion occurs when an auditor is unable to issue an opinion for reasons including scope limitation.
46. When securities are classified as ‘available for sale’ securities in U.S. GAAP unrealized gains and losses are:
- A. reported in the income statement.
  - B. not reported in the income statement but are recognized in equity.
  - C. neither reported in the income statement nor recognized in equity.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 3, Study Session 10, Reading 33, LOS-e.*

When securities are classified as ‘available for sale’ securities in U.S. GAAP (or securities measured at fair value through ‘other comprehensive income’ in IFRS) unrealized gains and losses are not reported in the income statement rather they are recognized in equity

47. An analyst gathered the following information from a company’s 2013 financial statements.

Net income	= \$24 million
Non-cash charges	= \$6 million
Cash flow from operations	= \$12 million
After tax interest paid	= \$2.6 million
Capital expenditure	= \$9.5 million
Tax rate	= 35%

The free cash flow for the firm (FCFF) is *closest* to:

- A. \$5.1 million.
- B. \$8.7 million.
- C. \$11.1 million.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 3, Study Session 8, Reading 26, LOS-i.*

$$\begin{aligned} \text{FCFF} &= \text{CFO} + \text{After tax interest} - \text{CFInv.} \\ &= \$12 \text{ million} + \$2.6 \text{ million} - \$9.5 \text{ million} = \$5.1 \text{ million.} \end{aligned}$$

48. Earnings smoothing can result from conservative choices to:
- A. overstate earnings in periods when a company's operations are struggling.
  - B. understate earnings in periods when a company's operations are struggling.
  - C. understate earnings in periods when a company's operations are performing well.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 10, Reading 32, LOS-c.*

Understatement of earnings volatility is called smoothing the earnings. Earnings smoothing can result from two ways:

- By using conservative choices to understate earnings in periods when a company's operations are performing well.
- By using aggressive choices to overstate earnings in periods when a company's operations are struggling.

49. Which of the following is *least likely* an (International Organization of Securities Commissions) (IOSCO) principle for issuers? Issuers should:
- A. prepare their financial statements using internationally acceptable accounting standards.
  - B. timely, fully and accurately disclose financial results, risks and other material information to investors.
  - C. make consistent choices with respect to accounting standards and their financial statements should be comparable.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 7, Reading 23, LOS-b.*

Two principles of IOSCO for issuers are:

- Issuers should timely, fully and accurately disclose financial results, risks and other material information to investors.
- Issuers should prepare their financial statements using internationally acceptable accounting standards.

50. The elements directly related to measurement of financial performance *least likely* include:
- A. liabilities.
  - B. expenses.
  - C. capital maintenance adjustments.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 3, Study Session 7, Reading 23, LOS-d.*

The elements directly related to measurement of financial **performance** are:

- Income
- Expenses
- Capital maintenance adjustments

The elements directly related to measurement of financial **position** are:

- Assets
- Liabilities
- Equity

51. An analyst gathered the following information for a firm:

Net income for the year	= \$8 million
Beginning shareholders' equity	= \$25 million
Unrealized gain on trading securities	= \$1.5 million
Unrealized loss on available for sale securities	= \$2 million
Foreign currency translation gain	= \$1.5 million
Cash dividends for the year	= \$1 million

The ending shareholders' equity of the company is *closest* to:

- A. \$30.0 million.
- B. \$31.5 million.
- C. \$33.0 million.



**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 3, Study Session 8, Reading 24, LOS-k.*

Ending shareholders' equity = Beginning shareholder's equity + Net income – cash dividends – net unrecognized gains/losses  
 = \$25 million + \$8 million - \$1million - \$0.5 million = \$31.5 million

Unrecognized gains/losses include:

- Unrealized loss on available for sale securities = -\$2 million
- Foreign currency translation gain = \$1.5million

Net unrecognized gains/losses = **-\$0.5 million**

52. An analyst observed the following percentage changes in Hunt PAL Inc.'s financials from 2012 to 2013:

Revenue	+33%
Net Income	+38%
Assets	+27%

If the major portion of the growth in net income is attributed to non-recurring items, the analyst will *least likely* conclude that Hunt PAL Inc.:

- A. has increased its efficiency.
- B. has failed to increase its profitability.
- C. cannot easily attract equity capital.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 8, Reading 27, LOS-c.*

Option C is the correct.

Based on the data the analyst can conclude that the firm:

- has increased its efficiency.
- has failed to improve its profitability.

If the growth rate of revenue is greater than assets growth rate it may indicate that company is increasing efficiency.

When net income is growing at a faster rate than revenue it may indicate that company's profitability is increasing but as the major portion of net income is due to non-recurring items then it means company has failed to improve its profitability.

When a company grows at a rate greater than that of overall market in which it operates it is regarded as positive sign and indicates that the company is easily able to attract equity capital. There is insufficient market data to arrive at this conclusion.

53. The financial leverage ratio of a firm, whose total debt ratio is 54% and debt-to-equity is 1.15, is *closest* to:
- A. 0.47.
  - B. 0.62.
  - C. 2.13.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 8, Reading 25, LOS-i.*

Total debt ratio x Financial leverage = Total debt-to-equity

$$\begin{aligned}\text{Financial leverage} &= \text{Total debt-to-equity} / \text{Total debt ratio} \\ &= 1.15 / 0.54 \\ &= 2.13\end{aligned}$$

54. An investor asked two questions from an analyst regarding the goodwill of a company.

Question 1: Which goodwill is reflected in the stock price of a company?

Question 2: Which goodwill is recognized when an acquisition takes place?

The *most appropriate* response of the analyst to questions 1 and 2, respectively, is:

	Question 1:	Question 2:
A.	Economic	Accounting
B.	Accounting	Economic
C.	Economic & Accounting	Economic

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 3, Study Session 8, Reading 25, LOS-e.*

Option A is correct.

**Accounting Goodwill:**

It is based on the accounting standards and is recognized only when acquisitions take place.

**Economic Goodwill:**

It is based on the economic performance of the company. It is not reflected on the balance sheet rather it is reflected in the stock price of the company (at least theoretically).

55. In 2012, the cost of ending inventory reported by T&M, a manufacturer of office equipment, was \$22 million. T&M compiles its financial statements in accordance with IFRS.

Exhibit 1

Replacement cost	\$20.5 million
NRV	\$21.2 million
NRV less profit margin	\$19.7 million

Based on the data shown in Exhibit 1, T&M would *most likely* write its inventory down by:

- A. \$0.8 million.
- B. \$1.5 million.
- C. \$2.3 million.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 3, Study Session 9, Reading 28, LOS-f.*

Under IFRS T&M would write down its inventory to \$21.2 million and record a \$0.8 million as an expense in the income statement.

56. A publishing firm contributed \$250,000 to support some philanthropic projects. The firm immediately expensed that amount in its income statement for the current fiscal year. According to applicable tax legislation such contributions are not tax-deductible.

Which of the following statements is *most likely* correct?

- A. A temporary difference of \$250,000 gives rise to a deferred tax liability.
- B. A deferred tax asset arises, as taxable income is greater than accounting profit.
- C. The treatment of \$250,000 for accounting and tax purposes represents a permanent difference.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 9, Reading 30, LOS-f.*

As contributions are not tax deductible, no temporary difference results from the \$25,000 contribution. This constitutes a permanent difference and thus no deferred tax asset or liability will be recognized.

57. Under IFRS the definitional criteria for identifiable intangible assets *most likely* includes:
- A. the cost of the asset can be reliably measured.
  - B. it is probable that the expected future economic benefits of the asset will flow to the company.
  - C. the asset must be identifiable, under the control of company and expected to generate future economic benefits.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 9, Reading 29, LOS-b.*

Under IFRS identifiable intangible asset *must* meet three **definitional criteria**. The asset *must be*:

- i. identifiable,
- ii. under the control of company and
- iii. expected to generate future economic benefits.

In addition the following two **recognition criteria which** *must* be met is:

- i. it is probable that the expected future economic benefits of the asset will flow to the company and
- ii. the cost of the asset can be reliably measured.

58. Knin Inc. issued a 6 year, 7% annual-coupon paying bond with a face value of \$10 million on 1<sup>st</sup> January 2011 when the market interest rate was 7.7%. Using the effective interest rate method, the interest expense on bonds reported in 31 December 2012 is *closest* to:
- A. \$700,000.
  - B. \$744,854.
  - C. \$748,308.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 9, Reading 31, LOS-b.*

The bonds were issued at a discount and sales proceeds were \$9,673,432 (see below). Under the effective interest rate method, interest expense is calculated as: bonds' carrying value x market interest rate.

Sales proceeds (PV of bond issue):

$N=6$ ;  $I/Y=7.7\%$ ;  $PMT=\$700,000$ ;  $FV=\$10,000,000$ ;  $CPT\ PV=-\$9,673,432$

Interest expense for the year ended 2011 is  $\$9,673,432 \times 7.7\% = \$744,854$ .

Interest expense for the year ended 2012 is  $\$9,718,286 \times 7.7\% = \mathbf{\$748,308}$ .

Carrying value \$9,718,286 in year 2012 is derived as  $\{9,673,432 + (\$744,854 - \$700,000)\}$ .

59. A lessor will record interest income if a lease is classified as:
- A. an operating lease.
  - B. either capital or operating lease.
  - C. either direct financing or sales-type lease.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 3, Study Session 9, Reading 31, LOS-k.*

C is correct. A portion of the payment as capital lease (either direct financing or sales-type) is reported as interest income. With an operating lease, all revenue is reported as rental revenue.

60. An investor uses simple stock screen criteria based on a P/E ratio of less than 5 and financial leverage ratio of less than 0.5. The investor will *least likely* exclude stocks of companies:
- A. with poor profitability.
  - B. with excessive financial risk.
  - C. that are expensive for good reason.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 3, Study Session 10, Reading 33, LOS-d.*

Simple criteria based on a P/E ratio of less than 5 may result in the selection of stocks with lower prices justified by reasons including lower profitability and/or higher financial leverage. However, the limitation of financial leverage serves as a check on financial risk. In order to avoid stocks of poor profitability the investor should further include a check on positive net income, i.e.  $NI/Sales > 0$ .

**Questions 61 through 72 relate to Corporate Finance**

61. The cash flows of projects A and B are given below:

Year	Cash flows	
	Project A	Project B
0	-1,500	-1,500
1	400	500
2	300	500
3	600	500
4	800	500

For a 12% discount rate, as compared to project B, the discounted payback period of project A is approximately:

- A. equivalent.
- B. 0.93 years higher.
- C. 1.25 years higher.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 35, LOS-d.*

The discounted payback period for project A and B are almost equal. The calculations are given below:

For Project A

Year	0	1	2	3	4
Cash flow (CF)	-1500	400	300	600	800
Cumulative CF	-1500	-1100	-800	-200	600
Discounted CF	-1500	357.14	239.15	427.07	508.41
Cumulative discounted CF	-1500	-1142.86	-903.71	-476.64	31.77

$$\text{Discounted Payback Period} = 3 + 476.64/508.41 = 3 + 0.9347 = 3.94$$



For Project B

Year	0	1	2	3	4
Cash flow (CF)	-1500	500	500	500	500
Cumulative CF	-1500	-1000	-500	0	500
Discounted CF	-1500	446.43	398.60	355.89	317.76
Cumulative discounted CF	-1500	-1053.57	-654.97	-299.08	18.68

$$\text{Discounted Payback Period} = 3 + 299.08/317.76 = 3 + 0.94 = 3.94$$

62. Net present value method assumes that cash flows are reinvested at the:
- A. internal rate of return.
  - B. accounting rate of return.
  - C. opportunity cost of capital.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 35, LOS-e.*

Net present value method assumes that cash flows of a project are reinvested at 'r', that is the opportunity cost of capital, which is a more realistic discount rate.

63. Compute the cost of trade credit if terms are 1/10 net 30 and the account is paid on the 30<sup>th</sup> day?
- A. 13.01%
  - B. 20.13%
  - C. 44.32%

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 38, LOS-f.*

$$\text{Cost of trade credit if paid on day 30} = \left(1 + \frac{0.01}{1-0.01}\right)^{\left(\frac{365}{20}\right)} - 1 = 20.13\%$$

64. An analyst gathered the following information to estimate the cost of equity for JI Inc. located in Fiji.

**Exhibit 1**

Risk free rate	3.2%
Market risk premium	5.5%
Beta	1.3
U.S. 10-year T-bond yield	2.84%
Fiji's 10-year dollar denominated Govt. bond yield	10.81%
Annualized SD of Fiji's stock market	44%
Annualized SD of Fiji's dollar denominated bond	37%

The sovereign yield spread and JI Inc.'s cost of equity are *closest* to:

- A. 7.97% and 18.51% respectively.
- B. 9.48% and 19.83% respectively.
- C. 7.97% and 22.67% respectively.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 36, LOS-j.*

Sovereign yield spread:

$$\begin{aligned}
 &= \text{Fiji's Govt. Bond yield} - \text{U.S T-Bond yield} \\
 &= 10.81\% - 2.84\% \\
 &= 7.97\%
 \end{aligned}$$

Country risk premium =  $\frac{\text{sovereign yield spread} \times$

$\frac{\text{Annualized SD of equity index}}{\text{Annualized SD of dollar denominated sovereign bond market}}$

$$\begin{aligned}
 &= 7.97\% \times \frac{44\%}{37\%} = 9.48\%
 \end{aligned}$$

JI Inc.'s cost of equity:

$$\begin{aligned}
 &= \text{RF} + \beta (\text{ERP} + \text{country RP}) \\
 &= 3.2 + 1.3 (5.5\% + 9.48\%) \\
 &= 22.67\%
 \end{aligned}$$

65. Which of the following statements is *most likely* correct regarding ‘uncommitted lines of credit’?
- A. An uncommitted line is very unstable and is only as good as a bank’s desire to offer it.
  - B. Uncommitted lines require compensation, typically, in the form of commitment fee.
  - C. Uncommitted lines of credit are the form of bank line of credit that most companies refer as regular line of credit.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 38, LOS-g.*

Option A is correct. An uncommitted line is very unstable and is only as good as a bank’s desire to offer it. Therefore, companies should not rely very much on uncommitted line.

Option B is incorrect. The primary attraction of uncommitted line is that they do not require any compensation other than interest.

Option C is incorrect. Committed line of credit are the form of bank line of credit that most companies refer as regular line of credit.

66. When a reliable current market price for a firm’s debt is not available, the cost of debt can be estimated using the:
- A. matrix pricing model.
  - B. coupon rate of the same bonds.
  - C. interest expense of the firm’s income statement.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 36, LOS-f.*

When a reliable current market price for a company’s debt is not available, the cost of debt can be estimated using the current rates based on the bond rating we expect when we issue new bonds. This approach is referred to as matrix pricing.

67. A manager is computing the cost of trade credit for the terms 2/10 net 30 and the account is paid on 20<sup>th</sup> day. The cost of trade credit is *closest* to:
- A. 24.69.
  - B. 44.59%.
  - C. 109.05%.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 38, LOS-f.*

$$\text{Cost of trade if credit paid on 20}^{\text{th}} \text{ day} = \left[ 1 + \frac{2\%}{1-2\%} \right]^{\frac{365}{20-10}} - 1 = 109.05\%$$

68. An analyst gathered the following financial information from Daniel Inc.

	<b>2013</b>	<b>Expected 2014</b>
Units Sold	1300	1400
Revenue (\$)	130,000	140,000
Operating income (\$)	38,000	52,000
Interest cost (\$)	12,000	12,000
Other financing cost (\$)	8,000	8,000
Tax (\$)	6300	11,200
Net Income (\$)	11,700	20,800

The degree of operating leverage of Daniel Inc. from 2013 to expected 2014 is *closest* to:

- A. 2.11.
- B. 3.68.
- C. 4.78.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 37, LOS-b.*

Degree of operating leverage (DOL)

$$= \% \Delta \text{ in operating income} / \% \Delta \text{ in units sold}$$

$$= \frac{\frac{52,000 - 38,000}{38,000}}{\frac{1,400 - 1,300}{1,300}} = 4.78$$

69. Mike Dolan is evaluating potential impact of changes in economy and health care conditions on Hi-Pharm Corp, a firm in the pharmaceutical business. Hi-Pharm's uncertainty with respect to the price and quantity of drugs produced is referred as:
- A. sales risk
  - B. financial risk
  - C. operating risk

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 36.*

A is correct. The uncertainty with respect to price and quantity of goods or services produced is referred as sales risk.

B is incorrect. Financial risk is the risk associated with how a business finance its operations.

C is incorrect. Operating risk is the risk with respect to operating cost structure of a business.

70. Seth Shelton, a financial analyst at UII Advisors is assessing the capital structure of BenChip Corp. Seth observed that the company is also using capital and operating leases as a source of capital along with debt and equity.

Which of the following statements is *least likely* correct with regards to the treatment of company's capital and operating leases? Seth should:

- A. include the cost of these leases in the BenChip's cost of capital.
- B. not consider these leases as BenChip's debt with option-like feature.
- C. treat these leases similar to the BenChip's other short-term borrowings.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 35.*

C is correct. Capital and financial leases are not treated as the company's short-term borrowings.

If the company uses leases as a source of capital, the cost of these leases should be included in the cost of capital. The cost of these forms of borrowings is similar to the company's other *long-term* borrowing.

Operating and financial leases are not considered as company's debt with option-like features.

71. Clothiers is a U.S. based company that manufactures garments. The Clothiers number of days of inventory for year 2018 is 81 days whereas the Clothiers' historic average inventory turnover ratio is 5.2.

It appears that Clothiers(‘):

- A. allowance for bad debt has increased.
- B. is losing sales as a result of stock-outs.
- C. management is projecting sales growth in 2019.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 37.*

Convert the turnover ratio to a number of days of inventory

Clothiers's historic average number of days of inventory =  $\frac{365}{5.2} = 70.19 \cong$

70 days

Clothiers number of days of inventory for 2018 = 81 days

Clothiers number of days of inventory is higher than the average.

Or

Convert the number of days of inventory to inventory turnover

Clothiers historic average inventory turnover = 5.2

Clothiers inventory turnover for 2018 =  $\frac{365}{81} = 4.5$

Clothers inventory turnover is lower than the average.

C is correct. A possible reason for Clothers low inventory turnover or high days of inventory is that the company's management is projecting sales growth in future years and as a result has increased production.

A is incorrect. There no any link between inventory and allowance for bad debt.

B is incorrect. A high inventory turnover or lower number of days may indicate that the company is losing sales due to stock-outs.

72. Aiden Inc. is planning to borrow \$2 million from Next Bank as an asset-based loan. The loan is secured using Aiden Inc.'s inventory as collateral. Under the arrangement, Next Bank requires Aiden Inc. to certify that the goods are segregated and held in trust, with proceeds of any sale remitted to the lender immediately. However, there is no involvement of 3<sup>rd</sup> party to supervise the inventory.

The arrangement type between Aiden and Next Bank is *most likely*:

- A. inventory blanket lien
- B. trust receipt arrangement
- C. warehouse receipt arrangement

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 4, Study Session 11, Reading 37.*

B is correct. The arrangement between Aiden and Next Bank is *trust receipt arrangement*, in which the lender requires to certify that the goods are segregated and held in trust, with proceeds of any sale remitted to the lender immediately.

Warehouse receipt arrangement is similar to trust receipt arrangement but involves 3<sup>rd</sup> party (a warehouse company) that supervises the inventory.

**Questions 73 through 85 relate to Equity**

73. For short selling purposes, if a security is extremely hard to borrow, the short rebate rate may be:
- A. very high.
  - B. negative or very low.
  - C. 10 basis points more than the overnight rate.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 13, Reading 44, LOS-e.*

For short selling purposes if a security is hard to borrow, the rebate rate may be very low or even negative. Such securities are said to be on special. Otherwise rebate rate is usually 10 basis points less than the overnight rate in the interbank funds market.

74. Which of the following statements is *most likely* correct regarding the fundamental weighting method?
- A. It is not biased towards shares of firms with largest market capitalization.
  - B. It is similar to momentum investment strategy where securities' weights are reduced when their relative investment values are increased.
  - C. It is biased towards highest priced stocks as they receive highest weights in the index.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 13, Reading 45, LOS-d.*

Option A is correct and both options B and C are incorrect. A fundamental weighting method is similar to contrarian investment strategy i.e. whenever the portfolio is rebalanced, weights of securities that have increased in relative value are reduced and weights of securities that have fallen in relative value are increased. Fundamental weighting is not biased towards the shares of firms with largest market capitalization.



75. Smith owns 500 shares of Wood Craft Inc. and the firm is going to elect 10 board directors. Under statutory voting Smith can cast:
- A. 500 votes to members in any desired proportion.
  - B. a maximum of 500 votes only for each member of board.
  - C. 5,000 votes and can spread them across candidates in any proportion.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 14, Reading 47, LOS-b.*

Under a statutory voting, each share represents one vote therefore Smith can cast maximum of 500 votes for each candidate i.e. he has to allocate his voting rights evenly among all candidates.

76. An investor placed a market buy order for thinly traded shares of G.Z.T Inc. The main drawback for the investor would be that:
- A. the order may be filled at a low price.
  - B. it would be very difficult to execute the order.
  - C. the trade would be very expensive to execute.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 13, Reading 44, LOS-h.*

Market orders generally execute immediately if other traders are willing to take other side of the trade, however they can be very expensive to execute especially when the order is placed in the market for a thinly traded security or when the order is large relative to normal trading activity. In such cases market buy order may fill at high prices.

77. The performance of commodity indices can be quite different from their underlying commodities because
- A. commodity returns are more volatile than commodity index returns.
  - B. returns of commodity indices are influenced by more than one factor.
  - C. commodity indices are relatively illiquid and depict less information transparency.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 13, Reading 45, LOS-k.*

The performance of commodity indices can be quite different from their underlying commodities because:

- indices are based on future contracts on the commodities instead of actual commodities.
- returns of indices include i) returns from changes in future prices ii) collateral return and iii) roll yield.

78. Which of the following statements is *most likely* correct? Enterprise value:
- A. is incapable of reflecting the real economic value of a company.
  - B. is prone to the negative earnings problem because of the use of EBITDA.
  - C. is applicable to the comparisons of companies with significantly different capital structures.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 14, Reading 49, LOS-i.*

Option C is correct. It is appropriate to use EV for comparing companies with significantly different capital structures.

Options A and B are incorrect. EV reflects the real economic value of a company and does not have the negative earnings problem because EBITDA is usually positive.

79. A firm will start paying dividends four years from now and thereafter that will be expected to grow 5% into perpetuity. Expected dividend in year 4 is \$5. If an

investor's required rate of return is 7%, the intrinsic value of the stock is *closest* to:

- A. \$200.
- B. \$204.
- C. \$227.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 14, Reading 48, LOS-e.*

The value of the firm can be calculated through two methods:

**Method 1**

$$V_4 = \frac{5(1+5\%)}{(7\%-5\%)} = 262.50$$

$$\text{Part 1: } V_0 = \frac{262.5}{(1+7\%)^4} = 200.26$$

$$\text{Part 2: } V_0 = \frac{5}{(1+7\%)^4} = 3.81$$

$$\text{Sum of part 1 and 2} = 200.26 + 3.81 = 204.07$$

**Method 2**

$$V_3 = \frac{5}{(7\%-5\%)} = 250$$

$$V_0 = \frac{250}{(1+7\%)^3} = 204.07$$

80. Which of the following is *least likely* a macroeconomic influence that affects an industry's growth? Changes in:
- A. inflation.
  - B. interest rates.
  - C. technologies.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 14, Reading 48, LOS-h.*

The five influences that affect an industry's growth, revenues and profits are:

- i. Macroeconomic influences

- ii. Technological influences
- iii. Demographic influences
- iv. Governmental influences
- v. Social influences

Macro-economic variables that affect industry growth are:

- GDP
- Interest rates
- Inflation
- Availability of credit

81. Which of the following *most* accurately illustrates the pricing rule used by the type of order driven market?

Uniform pricing rule	Discriminatory pricing rule	Derivative Pricing rule
----------------------	-----------------------------	-------------------------

- A. Call market                      Continuous market      Crossing network
- B. Continuous market      Call market              Crossing network
- C. Crossing network      Call market              Continuous market

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 13, Reading 44, LOS-j.*

Option A is correct.

- Call markets generally use uniform trading rule where all trades execute at the same price.
- Continuous trading markets use discriminatory pricing rule. Under this rule limit price of the order or the quote that first arrived determines the trade price.
- Crossing networks use derivative pricing rule because the price is derived from another market.

82. Asset based valuation models work well for companies that do not have a high proportion of:

- A. intangibles.
- B. fixed assets.
- C. current assets.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 14, Reading 49, LOS-j.*

Asset based valuation models work well for companies that do not have a high proportion of intangibles or off the book assets and that have a high proportion of current assets and current liabilities.

83. An investor holds 500 shares of Siena Inc. for one year on margin. Both the interest on loan and dividends on shares are paid at the end of the year. The other details are as follows:

Purchase price	\$45/share
Sale price	\$42/share
Dividend	\$1/share
Commission	\$0.1/share
Leverage ratio	1.5
Call money rate	4%

The investor's total loss is *closest* to:

- A. 7%.
- B. 9%.
- C. 10%.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 13, Reading 44, LOS-f.*

Investor's total loss in percentage =

(% change in market price x Leverage ratio) + other net change in % (due to dividend, interest and commission)

$$(-6.667 \times 1.5) + 1\% = -9\%$$

$$\text{Total purchase price} = 500 \times 45 = \$22,500$$

$$\text{Equity Portion} = 1/1.5 \times 22,500 = 15,000$$

$$\text{Loan} = 22,500 - 15,000 = 7,500$$

$$\text{Dividends received} = \$1 \times 500 = 500$$

$$\text{Commission paid} = \$0.1 \times 500 = 50$$

$$\text{Interest paid} = 4\% \times 7,500 = 300$$

$$\text{Change in market price} = \frac{42-45}{45} = -6.667\%$$

$$\text{Other adjustments (dividend, interest \& commission)} = 500 - 50 - 300 = 150$$

$$\text{Other adjustments \%} = \text{other \$ adjustments/equity} = 150/15,000 = 1\%$$

84. The £40 par value of a non-callable non-convertible preferred stock with maturity in two years and £5 semi-annual dividend is trading for £53.22. If the required rate of return for the investor is 7%, the preferred stock is:

- A. over-valued.
- B. fairly valued.
- C. under-valued.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 14, Reading 49, LOS-a.*

Preferred stocks are treated like fixed income securities. The intrinsic value can be calculated through calculator as:

$$\begin{aligned} r &= 7/2 = 3.5 & n &= 2 \times 2 = 4 & \text{Dividend PMT} &= 5 \\ \text{FV} &= 40 \\ \text{Calculate PV} &= 53.22 \end{aligned}$$

As the preferred stock is trading at a price equal to its intrinsic value therefore the stock is fairly valued.

85. A wheat farmer is worried that wheat prices will be lower than expected when his wheat will be ready for sale hence, he entered into a forward contract with a baker to sell his wheat of a specified quantity at a specified price on a specific future delivery date.

Which of the following is *most likely* the primary purpose of the farmer to arrange this trade?

- A. to manage risk
- B. to trade on information
- C. to save money for the future

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 14, Reading 44.*

The farmer's major concern is the future sale price of the wheat as the farmer doubts that the wheat prices might be lower than expected when his wheat would be ready for sale. The farmer entered into a forward contract is to eliminate his exposure to changing wheat prices.

**Questions 86 through 92 relate to Derivatives**

86. Value of a forward contract at expiration is the value of the asset:
- A. plus the forward price.
  - B. minus the forward price.
  - C. minus the present value of the forward price.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 17, Reading 57, LOS-c*

Value of a forward contract at expiration is the value of the asset minus

87. Which of the following factors *least likely* reduce the value of a European call option on a stock?
- A. Larger dividends
  - B. Lower exercise price
  - C. Less time to expiration

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 17, Reading 57, LOS-o*

Both larger dividends and less time to expiration reduce the value of a call option whereas, lower exercise price increase the value of a call option.

88. Derivative price *least likely* depends on:
- A. risk free rate.
  - B. investor's risk aversion.
  - C. characteristics of the underlying.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 17, Reading 57, LOS-a.*



The derivative price depends on the characteristics of the underlying, the characteristics of the derivative and the risk free rate. The derivative price does not depend on investor's risk aversion.

89. A type of credit derivative in which credit protection buyer makes a series of regularly scheduled payments to credit protection seller while the seller makes no payment until a credit event occurs is categorized as a:
- A. total return swap.
  - B. credit linked note.
  - C. credit default swap.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 6, Study Session 17, Reading 56, LOS-c.*

In a CDS (credit default swap), the credit protection buyer makes a series of regularly scheduled payments to the credit protection seller. The seller makes no payments until a credit event occurs.

90. The value of a forward contract prior to expiration is:
- A. the value of the asset minus the forward price.
  - B. the value of the forward price minus the value of the asset.
  - C. the value of the asset minus the present value of the forward price.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 6, Study Session 17, Reading 59, LOS-c.*

The value of a forward contract prior to expiration is the value of the asset minus the present value of the forward price.

91. Information can flow into the derivative market before it gets into the spot market due to the fact that derivative markets:
- A. require less capital.
  - B. are highly centralized.
  - C. are operated by more professional traders.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 6, Study Session 17, Reading 56, LOS-d.*

By virtue of the fact that derivative markets require less capital, information can flow into the derivative markets before it gets into the spot market. The difference may well only be a matter of minutes or seconds but it can provide the edge to astute traders.

92. An investor buys a unit of commodity for \$45. The risk-free rate is 4 percent and the price of the commodity is expected to be \$45.50 after one year. Which of the following *most likely* represent a possible reason for the investor to hold the commodity?
- A. The time value of money
  - B. Interim cashflows on the asset
  - C. The commodity is in short supply

*Reference:*

*CFA Level I, Volume 6, Study Session 17, Reading 56.*

**Correct Answer: C**

C is correct. Convenience yield (a non-monetary advantage of holding an asset) may provide the possible reason for holding the commodity if the expected return for holding the commodity is lower than the risk-free rate.

The investor can earn \$1.80 ( $\$46.8 - \$45$ ) by investing \$45 in risk-free rate ( $45 \times 1.04$ ). The investor does not earn any meaningful monetary benefit by holding the commodity for one year as the spot price of the commodity \$45 and the expected price of the commodity in one year is only \$45.50.

C is incorrect. Interim cash flows are typically provided by assets such as coupon-paying bonds or dividends paying stocks.

**Questions 93 through 105 relate to Fixed Income**

93. Which of the following is the *highest* ranked unsecured debt?
- A. First lien loan.
  - B. Senior unsecured.
  - C. Senior subordinated.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 16, Reading 54, LOS-b.*

The highest ranked unsecured debt is senior unsecured debt.

94. A U.S. based firm has a position in a European bond for a par value of €50 million. For a 1 basis point increase in yield the market value of the investment changes to €49.85 million and for a 1 basis point decrease in yield investment value changes to €51.23 million. The price value of basis point for the investment is *closest* to:
- A. 0.013.
  - B. 0.027.
  - C. 0.690.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 16, Reading 53, LOS-f.*

The formula for PVBP is:

$$PVBP = \frac{(PV-) - (PV+)}{2} = \frac{(51.23) - (49.85)}{2} = 0.69$$

95. In repurchase agreements, repo margin provides a margin of safety to the:
- A. dealer, if the lender of the cash defaults.
  - B. cash lender, if the collateral's market value declines.
  - C. security lender, if the collateral's market value declines.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 5, Study Session 15, Reading 51, LOS-h.*

The difference between market value of the security used as collateral and the value of the loan is known as repo margin. Repo margin allows for some worsening in market value and provides the cash lender a margin of safety if the collateral's market value declines.

96. An investor purchases a 2-year zero-coupon bond with par value of \$1,000 at \$960. The implied interest earned on the bond is *closest* to:
- A. \$0.
  - B. \$21.
  - C. \$40.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 15, Reading 50, LOS-a.*

Par value of the bond is \$1,000 and purchase price is \$960. The implied interest earned in the bond is equal to the difference of par value and purchase price.

97. An analyst observed the profitability and cash flows of firms A and B and collected the results below.

	<b>Firm A</b>	<b>Firm B</b>
Earnings before interest and tax	104 million	96.5 million
Free cash flow before dividends	-12.5 million	8.5 million
Free cash flow after dividends	N/A	-0.5 million

The firm(s) not suitable for deleveraging is (are):

- A. firm A only.
- B. firm B only.
- C. firms A and B.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 16, Reading 54, LOS-e.*

Both firm A and B have negative free cash flows after dividends. A firm with positive free cash flow after dividend can use its cash flow to pay down debt or build up cash on the balance sheet; either outcome is a form of deleveraging and is favorable from credit risk stand point.

98. An investor buys a 10-year, 7% annual coupon payment bond and sells the bond after 3 years. Assuming that the coupon payments are reinvested at 11.5% for 3 years. The interest on interest gain from compounding the coupon payments is *closest* to:
- A. \$2.51.
  - B. \$5.21.
  - C. \$23.5.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 16, Reading 53, LOS-a.*

If all the three coupon payments are reinvested at 11.5%, the future value of coupon payments is \$34.16 as calculated below:

$$7x(1+11.5\%)^2 + 7x(1+11.5\%)^1 + 7 = 23.5076$$

The interest on interest gain from compounding is 2.51 (23.51 - 21).

99. A recently issued sovereign bond for a given maturity is also referred to as:
- A. floating issue.
  - B. of the run issue.
  - C. benchmark issue.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 15, Reading 51, LOS-d.*

The latest sovereign bond issue for a given maturity is also referred to as ‘*Benchmark Issue.*’

100. A high yield bond issuer has offered the ‘change of control put’ to its bondholders. Under this covenant in the event of acquisition, the bondholder has a (n):
- A. right to put limits on how much secured debt an issuer can have.
  - B. option to change a certain percentage of his bond value with the equity of the issuer.
  - C. right to require the issuer to buy back their debt at par or at some premium to par.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 16, Reading 54, LOS-j.*

Under the change of control put, in the event of acquisition, bondholders have the right to require the issuer to buyback their debt often at par or at some premium to par value.

101. An annual modified duration of a fixed rate bond is 5.75. Although there is no change in benchmark yields but due to improved financial reporting quality and a ratings upgrade, the flat price of the bond has increased from 98.10 to 101.65 per 100 of par value. The estimated change in the credit spread of the bond is *closest* to:
- A. -62.93 bps.
  - B. -20.75 bps.
  - C. 361.88 bps.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 16, Reading 53, LOS-k.*

The percentage price increase is 3.62%.

$$\frac{101.65 - 98.10}{98.10} = 3.6188\%$$

Given the % price change and annual modified duration, the change in credit spread (due to change in yield-to-maturity) is 62.93 basis points.

% change in price = -Duration x change in yield

$$3.6188\% = -5.75 \times \text{change in yield}$$

$$\text{change in yield} = 3.6188\% / -5.75 = -62.93 \text{ basis points}$$

102. Current forward curve for one-year rates is given below:

Time Period	Forward Rate
0y1y	1.90%
1y1y	2.25%
2y1y	3.50%
3y1y	4.41%

The three-year implied spot rate is *closest* to:

- A. 2.55%.
- B. 3.18%.
- C. 4.41%.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 15, Reading 52, LOS-h.*

$$(1 + 1.9\%) \times (1 + 2.25\%) \times (1 + 3.5\%) = (1 + z_3)^3$$

$$(1.0190 \times 1.0225 \times 1.035) = (1 + z_3)^3$$

$$1.0784 = (1 + z_3)^3$$

$$z_3 = 2.5477 \cong 2.55\%$$

103. For rating agencies, the primary factor in assigning their ratings is:
- A. likelihood of default.
  - B. potential loss severity.
  - C. priority of payment in the event of a default.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 5, Study Session 16, Reading 54, LOS-c.*

For the rating agencies likelihood of default is the primary factor in assigning their ratings. The secondary factors include the priority of payment in the event of default and potential loss severity in the event of default.

104. Consider a 2-year 5% semiannual coupon-paying bond and the following sequence of spot rates:

<b>Term to maturity</b>	<b>Spot Rates</b>
6-months	1.00%
12-months	2.50%
18-months	4.00%
24-months	4.50%

The yield to maturity of the bond is *closest* to:

- A. 2.2%.
- B. 3.0%.
- C. 4.5%.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 5, Study Session 15, Reading 52, LOS-c.*



Given spot rates, the 2-year, 5% semiannual coupon paying bond is priced at 101.05 and the yield to maturity is 4.44%.

$$\text{Bond Price} = \frac{2.5}{(1+\frac{1.00\%}{2})^1} + \frac{2.5}{(1+\frac{2.50\%}{2})^2} + \frac{2.5}{(1+\frac{4.00\%}{2})^3} + \frac{100+2.5}{(1+\frac{4.50\%}{2})^4} = 101.05$$

The yield to maturity is:

$$\text{FV} = 100 \quad \text{PV} = -101.05 \quad \text{PMT} = 2.5 \text{ (5\%/2 x 100)} \quad \text{N} = 4$$

Calculate  $r = 2.22$  and  $\text{YTM} = 2.22 \times 2 = 4.44\%$ .

105. Which of the following statements is *most likely* correct about floating rate notes (FRNs)?
- A. The higher the issuer's credit quality, the higher the spread of a floating rate note.
  - B. The interest payments of a floating rate note are highly dependent on the current level of a reference interest rate.
  - C. The spread of a floating rate note is set when the bond is issued and then resets periodically during the tenure of the bond.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 16, Reading 50.*

B is correct. The interest payments of a floating rate note are highly dependent on the current level of a reference interest rate.

A is incorrect. The higher the issuer's credit quality, the lower the spread of a floating rate note.

C is incorrect. The coupon rate of a floating rate note has two components: reference rate + spread. The spread of a floating rate note is set when the bond is issued based on the issuer's credit worthiness at issuance and it remains constant. The reference rate, however, resets periodically.

**Questions 106 through 112 relate to Alternative Investments**

106. Mezzanine financing is capital provided:

- A. for major expansion.
- B. to prepare for an IPO.
- C. to initiate commercial manufacturing.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 18, Reading 58, LOS-d.*

During period of financial crises, the correlation between hedge funds and financial market performances may increase.

107. During periods of financial crises, the correlation between hedge funds and financial market performances may:

- A. increase.
- B. decrease.
- C. become 0.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 6, Study Session 18, Reading 58, LOS-c.*

During period of financial crises, the correlation between hedge funds and financial market performances may increase.

108. The four broad categories of hedge fund strategies identified by HFRI are:

- A. Equity-driven, Market neutral, Arbitrage and Hedge strategies.
- B. Event-driven, Relative value, Equity hedge and Macro strategies.
- C. Event-driven, Equity driven, Relative value and Market neutral strategies.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 18, Reading 58, LOS-d.*

The four broad categories of hedge fund strategies identified by HFRI are:

- i. Event-driven
  - ii. Relative value
  - iii. Equity hedge
  - iv. Macro strategies
109. For venture capital investing, later stage financing is the capital provided for a company:
- A. to prepare for an IPO.
  - B. to plan for major expansion.
  - C. to initiate commercial manufacturing and sales.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 18, Reading 58, LOS-d.*

Later stage financing in venture capital investing is capital provided for major expansion.

110. Which of the following is a suitable risk return measure for an analyst wanting to assess the downside risk of an alternative investment?
- A. Sharpe ratio
  - B. Sortino ratio
  - C. Standard deviation.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 6, Study Session 18, Reading 58, LOS-e.*

Downside risk measure focuses on the left side of the return. Sortino ratio is a measure of downside risk.

Sharpe Ratio and standard deviation is not an appropriate risk-return measure for alternative investments because sharpe ratio and standard deviation assume returns are not normally distributed.

111. Jerry invested \$11.25 m in EV Fund of funds (EVFOF) that invested the money with Tsar Hedge Fund (THF). EV FOF and THF have “1 & 10” and “2 & 20” fee structures respectively. Management fees are calculated using beginning of period capital and both management and incentive fees are computed independently. THF earned 17% annual return before management and incentive fees. Based on the data provided, net of fees return to Jerry is *closest* to:
- A. 7.08%.
  - B. 8.90%.
  - C. 9.44%.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 6, Study Session 18, Reading 58, LOS-f.*

Capital invested in THF	= \$11.25 m
Profit earned by THF	= \$1.9125 m (\$11.25 m x 17%)
THF Management fees	= \$0.225 m (\$11.25 m x 2%)
THF Incentive fees	= \$0.3825 m (\$1.9125 m x 20%)
Return to THF investor	= $\frac{\$1.9125\text{ m} - \$0.225\text{ m} - \$0.3825\text{ m}}{\$11.25\text{ m}} = 11.6\%$
Profit earned by EV FOF	= \$1.305 m (\$11.25 m x 11.6%)
EV FOF Management fees	= \$0.1125 m (\$11.25 m x 1%)
EV FOF Incentive fees	= \$0.1305 m (\$1.305 m x 10%)
Return to EV FOF investor	= $\frac{\$1.305\text{ m} - \$0.1125\text{ m} - \$0.1305\text{ m}}{\$11.25\text{ m}} = 9.44\%$

112. The returns of which type of investments rely to a great extent on manager skills?
- A. Commodity investments
  - B. Infrastructure investments
  - C. Private equity investments

**Correct Answer: C**

C is correct. The returns of private equity investments rely to a great extent on manager skills.

**Questions 113 through 120 relate to Portfolio Management**

113. Which of the following quantifies and allocates the tolerable risk by specific metrics?
- A. Risk tolerance
  - B. Risk Budgeting
  - C. Enterprise risk management

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 40, LOS-e.*

Risk budgeting quantifies and allocates the tolerable risk by specific metrics. Risk tolerance on the other hand focuses on the appetite for risk and what is acceptable. Risk budgeting specifically focuses on how that risk is taken.

114. When an investor's ability to take risk is above average but willingness is below average, the investor's risk tolerance is
- A. average.
  - B. above average.
  - C. below average.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 43, LOS-d.*

When an investor's ability to take risk is above average but willingness is below average, the investor's risk tolerance is below average.

115. The intercept of security characteristic line (SCL) is:
- A. Beta.
  - B.  $R_M - R_F$ .
  - C. Jensen's alpha.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 43, LOS-h.*

The equation of SCL is represented by:

$$R_i - R_f = \alpha + \beta (R_M - R_F)$$

Intercept =  $\alpha$  (Jensen's alpha )

Slope =  $\beta$

116. Generating sufficient income and maintaining the real capital value of the fund are *most likely* the objectives of:
- A. insurance companies.
  - B. university endowments.
  - C. investment companies.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 39, LOS-b.*

The primary objectives of endowments and foundations are generating sufficient income to the fund the objectives and maintaining the real asset value of the fund.

117. An investor earned -0.5% returns in predicting the one-week movement in the dollar/pound exchange rate from 06/01/13 to 06/07/13. The loss an investor can suffer by the end of May 2014 keeping the given return as representative of future losses is *closest* to:
- A. 1.98%.
  - B. 22.9%.
  - C. 29.6%.

**Correct Answer: B**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 41, LOS-a.*

Annualized return for investor =  $(1 - 0.5\%)^{52} - 1 = -22.95\%$

118. Which of the following two measures are based on the total risk and provide similar rankings?

- A.  $M^2$  and Sharpe ratio.
- B. Sharpe and Treynor ratios.
- C. Treynor ratio and Jensen's alpha.

**Correct Answer: A**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 42, LOS-h.*

Both  $M^2$  and Sharpe ratio are based on total risk and provide similar rankings to evaluate portfolio performances.

119. Generating higher returns from security selection *most likely* depends upon:
- A. lower index turnover and passive management.
  - B. higher informational efficiency and lower index turnover.
  - C. lower informational efficiency and higher skills of investment managers.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 43, LOS-f.*

Generating higher returns from security selection depends upon two factors:

- i. skills of investment managers (greater the skill, higher the value added from security selection).
- ii. informational efficiency (lower information efficiency can easily generate higher returns from security selection. Higher information efficiency requires greater level of skill to generate higher returns and passive management is preferred).



120. Assuming the correlation between an asset and market is 0.67 and the asset and market have standard deviations of 0.34 and 0.19 respectively, the asset beta would be *closest* to:
- A. 0.09.
  - B. 1.00.
  - C. 1.20.

**Correct Answer: C**

*Reference:*

*CFA Level I, Volume 4, Study Session 12, Reading 42, LOS-e.*

$$\text{Market's beta} = \delta_{m,m} \times \sigma_m / \sigma_m = 1$$

(Any asset's beta itself is 1, so the beta of market is 1).

$$\text{Asset's beta} = \delta_{i,m} \times \sigma_i / \sigma_m = \frac{0.67 \times 0.34}{0.19} = 1.20$$