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CFA Level I 5th Mock Exam
June, 2015
Revision 1

FinQuiz.com – 5th Mock Exam 2015 (PM Session)

Questions	Topic	Minutes
1-18	Ethical and Professional Standards	27
19-32	Quantitative Methods	21
33-44	Economics	18
45-68	Financial Reporting and Analysis	36
69-76	Corporate Finance	12
77-88	Equity Investments	18
89-94	Derivative Investments	9
95-106	Fixed Income Investments	18
107-112	Alternative Investments	9
113-120	Portfolio Management	12
	Total	180

Questions 1 through 18 relate to Ethical & Professional Standards

1. Mosaic theory is defined as an analyst combining information that is:

   A. public and material public.
   B. public and material nonpublic.
   C. non-public and immaterial nonpublic.

   Correct Answer: A

   Reference:
   CFA Level I, Volume 1, Study Session 1, Reading 2, LOS a

   The mosaic theory involves the analyst combining public and material public information as the basis for investment recommendations and decisions even if the information had been material inside information, if communicated directly to the analyst.

2. Jewel Knowles is a research analyst at Trimont Limited. During the course of her research, Knowles comes across an unpublished research report in the firm's electronic database which is not password protected. The report concerns ADP, a biotechnology firm, which is developing an item of lab equipment using in-house developed technology. In his report, he recommends a strong buy based on his personal observation of how the model operates, ADP's financial projections concerning the equipment, discussion with company executives, and analysis of industry data. He intends to release his report when the firm launches a prototype of the equipment in the market. After reading the report, Knowles would like to purchase ADP shares for her investment portfolio.

   Can Knowles purchase the stock for her investment portfolio?

   A. No, she is not permitted to act on material nonpublic information.
   B. Yes, she can act on a recommendation prepared using the mosaic theory.
   C. Yes, but she will have to seek her supervisor's consent prior to the purchase.

   Correct Answer: A

   Reference:
   CFA Level I, Volume 1, Study Session 1, Reading 2, LOS a

Knowles cannot purchase the stock for her investment portfolio as the recommendation is based on material nonpublic information (discussion with company executives, observation of how the model operates, and ADP's financial projections concerning an unreleased equipment) despite being combined with material public information (industry data). She must wait until the report is released.
Receiving her supervisor's consent to act on material nonpublic information is itself a violation of the CFA Institute Standards of Professional Conduct concerning responsibility of supervisors and material nonpublic information.

3. The employees of LockHurst Traders, a dealer firm, established an equity fund that invests in highly speculative 'hot' issues for their personal investment portfolios. The fund was set up after receiving employer consent and all securities purchased are pre- cleared by a company officer. The latest security purchased by the fund is issued by a manufacturer, which has previously undertaken an IPO of its stock. The employees have made an agreement with the manufacturer whereby they will purchase a large quantity of the stock to induce an increase in price. The stock will later be sold to clients when its price has at least doubled.

Which of the following standards is *least likely* being violated?

A. Fair dealing
B. Misrepresentation
C. Responsibility of supervisors

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 1, Reading 2, LOS b

Standards related to fair dealing and responsibility of supervisors are being violated. The agreement made with the manufacturer is a violation of the standard concerning fair dealing as employees will retain any profit generated from the trade for their fund rather than giving their clients the opportunity to benefit from price increases. The standard concerning responsibility of supervisors is also being violated as the employer has pre cleared a purchase that does not give priority to client interests.

There is nothing in the case to suggest that standard relating to misrepresentation is being violated.

4. When establishing trade allocation procedures for client portfolios, members and candidates should consider giving all client accounts participating in block trades the

   A. same execution price and charging the same commission.
   B. execution price and commission on first in first out basis.
   C. same execution commission and the execution price based on first in first out basis.

   Correct Answer: A

   Reference:
   CFA Level I, Volume 1, Study Session 1, Reading 2, LOS a

   When establishing trade allocation procedures for client portfolios, members and candidates should consider giving all client accounts participating in block trades the same execution price and charging the same commission.

5. Mark Michler is a financial analyst who is developing performance projections for Tike Limited, for the financial years 2015 to 2030. He uses a forecasting model developed by his supervisor to extrapolate historical performance information (from the years 1990 to 2014) into the future, makes further adjustments, and publishes the forecasts in his research report. He includes a small disclosure at the end of the report, which reads, 'All forecasts represent simulations of past performance.'

   Is Michler in violation of any CFA Institute Standards of Professional Conduct?

   A. No.
   B. Yes, he is not permitted to use simulated performance information.
   C. Yes, his disclosure does not provide full details on the simulated performance.

   Correct Answer: C

   Reference:
   CFA Level I, Volume 1, Study Session 1, Reading 2, LOS b

Michler's disclosure is in violation of the CFA Institute Standards of Professional Conduct concerning performance presentation. Although he has disclosed the fact that forecasts represent simulations of past performance, he should fully disclose the source of the performance data and the time period of the historical performance.

6. Walter Stewart is the chief investment manager at Carl & Mathews, which is renowned for its asset management services. During an official visit to an investment conference, Stewart engages in a discussion with Marie Lance, a philanthropist who is seeking to establish an investment fund for a charitable foundation. Stewart casually mentions that he once managed the account of 'a (former) client' who was seeking to donate a significant sum of money to a cause like Lance's. Stewart also offers to ask the client to get in touch with Lance.

   Is Stewart in violation of the CFA Institute Standards of Professional Conduct concerning client confidentiality?

   A. Yes.
   B. No, because he has not revealed the identity of the client.
   C. No, because information concerning former clients is no longer confidential.

Correct Answer: A

Reference:
CFA Level I, Volume 1, Study Session 1, Reading 2, LOS b

Stewart has attempted to pass on client confidential information concerning his former client and is thus in violation of the standard relating to client confidentiality. The CFA Institute requires members and candidates to preserve the confidentiality of former clients and so any information shared by former clients is covered by this standard.

Even though Stewart has not revealed the identity of the client, he has shared information that was passed on to him in confidence.

7. Donna Simpson had an exceptional performance year and is offered a two-way ticket and fully paid trip to the Greece by her client as reward. Simpson's *best* course of action is to:

   A. reject the offer.
   B. receive consent from her employer before accepting the offer.
   C. accept the offer as long as she notifies her employer accordingly.

   Correct Answer: C

   Reference:
   CFA Level I, Volume 1, Study Session 1, Reading 2, LOS a

   Simpson is not required to receive consent from her employer prior to accepting the offer. Gifts from clients are less susceptible to conflicts of interest as opposed to gifts from third-parties. Her best course of action is to accept the offer and notify her employer either before acceptance or after, whichever is possible.

8. With respect to the acceptance of gifts, the CFA Institute:

   A. discourages customary business-related entertainment.
   B. encourages setting a strict value limit for acceptable gifts.
   C. encourage accepting gifts from parties other than clients.

   Correct Answer: B

   Reference:
   CFA Level I, Volume 1, Study Session 1, Reading 2, LOS a

   With respect to the acceptance of gifts, the CFA Institute encourages setting a value limit for acceptable gifts based on local or regional customs. Customary, business-related entertainment is not prohibited as long as its purpose is not to influence or reward the member or candidate.

9. Which of the following is *least likely* the code of ethics?

   A. Promote the integrity of and uphold the rules governing capital markets.
   B. Maintain and improve professional competence and strive to maintain and improve the competence of other investment professionals
   C. Deal fairly and objectively with all clients when providing investment analysis, making investment recommendations or taking investment actions.

   Correct Answer: C

   Reference:
   CFA Level I, Volume 1, Study Session 1, Reading 1, LOS a

   Both options A and B are the code of ethics while option C is Standard III (C)- Fair dealing

10. With the permission of her former employer, Taylor Reed shares information concerning her achievements at the firm with her new employer. She writes a short summary, which includes the results she has achieved over the past ten years and the names of several important client accounts for which she executed trades. Taylor forgets to mention her association with her former employer in her summary but takes caution not to share additional client information with her new employer.

    Taylor is in violation of the CFA Institute Standards of Professional Conduct relating to:

    A. record retention.
    B. misrepresentation.
    C. loyalty to employer.

    Correct Answer: B

    Reference:
    CFA Level I, Volume 1, Study Session 1, Reading 2, LOS b

Taylor is in violation of the standard relating to misrepresentation as she did not identify the performance as being achieved at her former employer. She is unintentionally giving the impression that she operates as an independent trader.

Taylor is not in violation of the standard relating to record retention as she has received employer consent for sharing performance information.

By sharing the names of clients whose accounts she managed, Taylor is in violation of the standard relating to preservation of client confidentiality as opposed to loyalty to employer. She is not in violation of the latter standard because she is not misusing client information nor is she misappropriating clients or client lists. Sharing the names of former clients is a violation of their right to confidentiality.

11. Following the conclusion of research on a steel equipment manufacturer, a research firm releases a one word 'sell' recommendation to all its clients and prospects and discloses that 'additional information concerning the recommendation is available from the producer of the report'.

Based on the communication used by the firm, it is *most likely:*

A. in violation because the firm must include the factors that were used to arrive at the recommendation.
B. in violation because the firm must disclose the identified 'additional information' as part of the recommendation.
C. not in violation of the Code and Standards as communication is defined as 'highly diverse' by the CFA Institute Standards of Professional Conduct.

Correct Answer: A

Reference:
CFA Level I, Volume 1, Study Session 1, Reading 2, LOS b

According to Standard V (B) Communication with Clients and Prospects, communication can range from an in-depth research report to a one word ‘buy’ or ‘sell’. The firm is in violation because it has not included the factors used to arrive at the recommendation; this will allow clients and prospects to judge the suitability of a recommendation.

However, it is necessary for the firm to follow the brief communication with a written disclosure that additional information concerning the recommendation is available from the producer of the report. The firm’s disclosure is not in violation of the standard in this regard.

12. Jason Gilbert, CFA, is an exam grader for the CFA Program. He also works as an independent research analyst. When asked about his experience as a grader and the CFA Program’s scope in the financial market, Gilbert makes the following comments:

Comment 1: “Although results for the CFA exam are yet to be released, pass rates will be the lowest across all levels.”

Comment 2: “The CFA Program equips candidates to be qualified enough to deal with a broad range of real-life topics including, but not limited to, financial analysis, portfolio management, quantitative techniques and corporate finance.”

Which comment *most likely* represents a violation of the CFA Institute Standards of Professional Conduct?

A. Comment 1 only.
B. Comment 2 only.
C. Both of the comments.

Correct Answer: A

Reference
CFA Level I, Volume 1, Study Session 1, Reading 2, LOS b

Comment 1 represents a violation of the standard relating to conduct as members and candidates in the CFA program. As a grader for the CFA exams, Gilbert is responsible for upholding the confidentiality of the CFA exam. Information concerning compiled pass rates, prior to the release of exam results, is considered confidential information and sharing it with the public is considered a violation.

Gilbert is not in violation of any standards with respect to his second comment. His comment with respect to the CFA Program is factual and framed in such a manner.

13. Upon receiving a written complaint, the CFA Institute Designated Officer conducts an investigation and discovers that a violation of the Code and Standards has occurred. If the designated officer issues a disciplinary sanction, the member or candidate:

    A. can reject it.
    B. must accept it.
    C. will receive a cautionary letter.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 1, Study Session 1, Reading 1, LOS a

    If the designated officer finds that a violation of the Code and Standards has occurred, he will issue a disciplinary sanction, which may be accepted or rejected by the member or candidate.

14. The Code and Standards require members and candidates to make a reasonable inquiry into a client's risk and return objectives and financial constraints prior to making investment recommendations and taking investment action for:

    A. clients with a stated mandate, strategy or style only.
    B. members or candidates in an investment advisory relationship only.
    C. clients with a stated mandate, strategy or style and members or candidates in an investment advisory relationship.

    Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 1, Reading 1, LOS c

When managing funds to a stated mandate, strategy or style members and candidates must make investment recommendations or take investment action that is consistent with the stated objectives and constraints of the portfolio; an ***inquiry is not required***.

When in an investment advisory relationship with clients, the standard relating to suitability requires members and candidates to make a reasonable inquiry into a client's risk and return objectives prior to making investment recommendations and taking investment action for clients.

15. Which of the following statements concerning claiming compliance with the GIPS standards is *most likely* correct?

    A. Compliance must be achieved on a firm-wide basis.
    B. Compliance with the GIPS standards is enforced by legal and regulatory authorities.
    C. Software vendors supplying performance calculation software programs to investment management firms can claim compliance with the GIPS standards.

Correct Answer: A

Reference:
CFA Level I, Volume 1, Study Session 1, Reading 3, LOS a

Compliance is a firm-wide process and cannot be achieved on a single composite or product.

Compliance with the GIPS standards is entirely voluntary and is not enforced by legal or regulatory authorities.

Only investment management firms that actually manage assets can claim compliance, therefore software vendors who supply software to investment management firms for the purposes of calculating performance cannot claim compliance.

16. Which of the following is *least likely* tested by the verification process? Whether the investment management firm (‘s):

    A. meets the definition of a firm as laid out by the GIPS standards.
    B. policies and procedures for calculating performance are in compliance with the GIPS standards.
    C. has complied with the composite construction requirements of the GIPS standards on a firm-wide basis.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 1, Study Session 1, Reading 3, LOS c

    Verification tests whether the:

    - investment management firm’s policies and procedures for calculating and presenting performance are in compliance with the GIPS standards.

    - investment management firm has complied with the composite construction requirements of the GIPS standards on a firm-wide basis.

17. For periods beginning on or after January 1, 2011, the GIPS standards require portfolios to be valued on the basis of:

    A. fair value.
    B. original cost.
    C. present value.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 1, Study Session 1, Reading 4, LOS a

    For periods beginning on or after January 1, 2011, the GIPS standards require portfolios to be valued on the basis of fair value and in accordance with its Valuation Principles.

18. Base Corp. resides in a country that enacted laws and regulations for calculating and presenting investment performance fifteen years ago. By complying with local laws and regulations, Base Corp:

    A. cannot claim compliance with the GIPS standards.
    B. has automatically complied with the GIPS standards.
    C. can also comply with the GIPS standards but must give priority to the former in the event of conflict between the two.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 1, Reading 4, LOS c

In the event a country has imposed laws and regulations for calculating and presenting investment performance, firms are also encouraged to comply with the GIPS standards. Compliance with these laws or regulations does not automatically lead to compliance with the GIPS standards; this is because a conflict may exist between the former and latter. In the absence of a conflict, compliance with the local laws or regulations will lead to a compliance of the GIPS standards as both will impose the same requirements. However, when a conflict exists, firms are required to give priority to local laws and regulations and disclose the conflict.

Questions 19 through 32 relate to Quantitative Methods

19. If there is no variability in the data set, the geometric mean will equal to the:

    A. arithmetic and harmonic mean.
    B. harmonic mean but will be lower than the arithmetic mean.
    C. arithmetic mean but will be higher than the harmonic mean.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 1, Study Session 3, Reading 7, LOS m

    In the absence of any variability in a data set, the geometric mean will equal to both the arithmetic and harmonic mean. Based on how the harmonic mean is derived mathematically, as long as all observations have the same value (i.e., there is no variability in the data set), this mean will equal to the geometric and arithmetic mean.

20. A recruitment agency is short listing candidates for a position. The candidates being evaluated are from numerous educational backgrounds. The probability that the selected candidate is an MBA is 0.65 and the probability that the chosen candidate is the most appropriate for the role is 0.30. The agency has worked out that the probability a chosen candidate is appropriate given that he is of a non-MBA is 0.25.

    Using the total probability rule, what is the probability that the chosen candidate is the *most* appropriate for the HR role given that he is an MBA?

    A. 0.327.
    B. 0.300.
    C. 0.750.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 1, Study Session 2, Reading 8, LOS e

P (A) = Probability candidate is most appropriate = 0.30
$P(A^C)$ = Probability candidate is not appropriate = 0.70
P (S) = Probability candidate is an MBA = 0.65
$P(S^C)$ = Probability candidate is of a non-MBA educational background = 0.35
$P(A/S^C)$ = Probability candidate is appropriate given non-MBA = 0.25

Total probability rule:
P (A) = $P(A|S)P(S) + P(A|S^C)P(S^C)$
$P(A|S)$ = [0.30 – 0.25(0.35)] ÷ 0.65 = 0.3269 or 0.327

21. The most probable definition of an exhaustive event is that it:

A. covers all possible outcomes.
B. has a specified set of outcomes.
C. is the chance that a specified event will occur.

Correct Answer: A

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 8, LOS a

An exhaustive event is one that covers all possible outcomes. An event, in general, is defined as a specified set of outcomes. Probability is defined as the chance that a specified event will occur.

22. Dwight Enterprises holds equity stock of Max Limited. The current price per share is $30. The probability that the investment will increase in value over the coming year is denoted as $\hat{p}$. Over the past year, the stock had increased in value in seven out of the twelve months. If the stock increases in value, it is expected to earn an annualized rate of return of 2%.

Viewing the monthly change in stock prices as individual Bernoulli trials, the probability that the stock will increase in value over the coming year is *closest* to:

A. 0.0117
B. 0.0200.
C. 0.5833.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 9, LOS g

With each stock price movement viewed as an individual Bernoulli trial, the probability of an up move (price increase) is based on the number of up-moves in the preceding year; i.e. out of the twelve months observed the stock increased in value during seven of those months. Probability of an up-move is 7/12 or 0.5833.

23. Defining properties of a probability *least likely* include the following:

    A. probabilities are based on logical analysis.
    B. the probability of any event is between 0 and 1.
    C. the sum of probabilities of any set of mutually exclusive and exhaustive events equals 1.

Correct Answer: A

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 8, LOS b

Defining properties of a probability include:

- the probability of any event is between 0 and 1.
- the sum of probabilities of any set of mutually exclusive and exhaustive events equals 1.

24. Which of the following statements is *least likely* correct regarding a limitation of technical analysis?

    A. Technicians restrict their analysis to studying market movements.
    B. Technicians are slow to recognize changes in trends and/or patterns.
    C. The analysis cannot be applied to asset classes that do not have an income stream.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 12, LOS a

Technical analysis is the only form of analysis that can be used to analyze asset classes that do not generate an income stream such as commodities, currencies and futures; this form of analysis does not rely on valuation models but on market trends and patterns.

A drawback of technical analysis is that it is limited to studying market movements with little consideration given to other predictive analytical methods such as interviewing a company’s customers to determine future demand for its products.

A limitation of technical analysis is that trends and patterns must be in place for some time before they are recognizable. Thus, a limitation of technical analysis is it can be late in identifying changes in trends or patterns.

25. Which of the following features is *most likely* correct regarding binomial random variable?

    A. The individual trials are positively correlated.
    B. The probability of success is constant for all trials.
    C. The probability of success can only take on a value of 0 or 1.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 9, LOS e

Features distinct to a binomial random variable include:

- The individual trials are independent (uncorrelated) and
- The probability of success is constant for all trials and does not necessarily have to equal to 0 or 1.

26. The exhibit provides information concerning quarterly returns on two otherwise identically managed equity funds, A and B, as well as statistical estimates concerning their mean return differences over the past fifty quarters.

Measure	Fund A Return (%)	Fund B Return (%)	Differences (Fund A – Fund B)
Mean	2.780	3.756	- 0.976
Standard Deviation	4.672	5.468	- 0.796

Using a critical value of 1.671, which of the following conclusions is *most likely* valid concerning differences between the mean returns on Fund A and B?

A. The difference is significant.
B. The difference is insignificant as the null hypothesis is rejected.
C. The difference is insignificant as the null hypothesis is not rejected.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 11, LOS i

The null hypothesis is that the difference between the mean returns is zero.

Using the critical value of 1.671, the test statistic is calculated as follows:

$$t = \frac{\bar{d} - \mu_{d0}}{s\bar{d}} = \frac{-0.976 - 0}{-0.796/\sqrt{50}} = 0.1734$$

Since neither of the rejection points (t > 1.671 or t < -1.671) is met, the null hypothesis that the difference in mean returns is zero is not rejected. In other words one can conclude that the difference in mean returns is not statistically significant.

27. The real risk-free interest rate *most likely* reflects:

A. compensation for expected inflation.
B. the relationship between different dated cash flows.
C. time preferences of individuals for current versus future real consumption.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 5, LOS a

In economic theory, the real risk-free interest rate reflects time preferences of individuals for current versus future real consumption and is the single period real risk-free rate if no inflation were expected. The interest rate reflects the relationship between different dated cash flows while the nominal risk-free interest rate reflects compensation for expected inflation.

28. A cricket club's manager is evaluating the performance of its players over the past year and will use this as a basis for forecasting future performance. The probability that a player performing well in the past season will continue to do so is 0.65. The probability a chosen venue will provide favorable playing conditions for a player is 0.20. The probability that either of the two events materialize is 0.40.

The probability that past performance and favorable playing conditions contribute positively to player performance in the future is *closest* to:

A. 0.13.
B. 0.40.
C. 0.45.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 8, LOS f

Using the addition rule, the probability that both past performance and playing conditions contribute positively to player performance is 0.45.
P (A or B) = P(A) + P(B) – P(A and B)

Where P(A) = Probability that a player performing well in the past will continue to do so in the future
P(B) = Probability that playing conditions will contribute positively to player performance

P(A and B) = 0.65 + 0.20 – 0.40 = 0.45

29. A telecommunication company's procurement analyst has forecasted that the average cost for one of its key inputs will equal $25.00 per unit. The analyst would like to measure the dispersion around his cost forecast using the probability distribution of purchase costs in the current fiscal year.

Probability	Purchase Cost ($)
0.10	28.00
0.25	27.80
0.35	26.40
0.30	19.10
1.00	

The standard deviation of unit purchase costs in the current fiscal year is *closest* to:

A. $0.28.
B. $3.69.
C. $4.97.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 8, LOS l

$$\sigma^2(Cost) = (0.10)(28.00-25.00)^2 + (0.25)(27.80-25)^2 +$$
$$(0.35)(26.40-25.00)^2 + (0.30)(19.10-25.0)^2$$

$$\sigma(Cost) = \sqrt{13.5915} = \$3.686665$$

30. Marcus Babbage holds a \$500,000 investment portfolio. In the current year Babbage will need to withdraw \$40,000 to finance a business venture. However, he does not want the withdrawal to invade his portfolio's principal. His portfolio manager has identified three alternative asset allocations for Babbage:

	A	B	C
Expected annual return	13	22	15
Standard deviation of return	17	28	19

Which of the three allocations is the *most* optimal for Babbage's investment portfolio?

A. A
B. B
C. C

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 9, LOS n

Based on Babbage's withdrawal requirements, his threshold return is 8.00% (\$40,000/\$500,000).

To determine which allocation is optimal, the safety-first ratio for each allocation is calculated as follows:

Allocation A: (13 – 8)/17 = 0.2941

Allocation B: (22 – 8)/28 = 0.5000

Allocation C: (15 – 8)/19 = 0.3684

Based on the calculated measures, allocation B is most optimal.

31. A nonparametric test is preferred to a parametric test when:

A. stronger measurement scales are required.
B. the randomness of a sample is being questioned.
C. the population from which the sample is drawn is assumed to be normally distributed.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 11, LOS k

A nonparametric test is preferred to a parametric one when the data do not meet distributional assumptions, when the original data are given in ranks (and a stronger measurement scale is not required), or when the hypothesis being tested does not concern a parameter. For instance, one may need to test whether a sample is random or not rather than testing a parameter.

32. A portfolio manager is comparing the performance of a client's portfolio before and after the inclusion of real estate. He has complied relevant data in a table. He aims to analyze whether quarterly returns have changed significantly between the two periods.

He collects returns data five years prior to and five years after the inclusion.

	N	Mean Quarterly Returns (%)	Variance of Returns
Before inclusion	20	2.584	225
After inclusion	20	1.821	151

Using a 2.1555 rejection point, the manager will *most likely* conclude that the inclusion of real estate:

A. significantly alters portfolio performance.
B. does not significantly alter portfolio performance
C. has an indeterminate effect on portfolio performance.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 11, LOS j

The null hypothesis is stated as $\sigma_1 = \sigma_2$ implying that the ratio of population variances equal, while the alternate hypothesis states that the two periodic variances are not.

Following the convention of using the larger of the two ratios, period 1's variances appear in the numerator of the F-test.

The F-test statistic is calculated as follows:

$$F = \frac{s_1^{\ 2}}{s_2^{\ 2}} = \frac{225}{151} = 1.49$$

The F-statistic value is lower than the rejection point and so we fail to reject the null hypothesis that the population variances of returns is same in the five years prior and five years post inclusion of the asset class; thus the inclusion of real estate does not significantly alter portfolio performance.

Questions 33 through 44 relate to Economics

33. Laura Martin, CFA, is a British investor currently holding Singaporean equities. She is exploring arbitrage opportunities in the forward foreign currency market. The current GBP/SGD spot exchange rate is 2.1050. She has devised the following strategy:

    Invest SGD for twelve months in risk-free zero coupon bonds at a rate of 4.5%. At the end of the term convert the SGD to the GBP at an agreed upon forward rate of GBP/SGD 2.0303.

    The return on the strategy in domestic currency terms is *closest* to:

    A. 0.35%.
    B. 0.45%.
    C. 0.79%.

    Correct Answer: C

    Reference:
    CFA Level 1, Volume 2, Study Session 6, Reading 21, LOS f

    Martin will convert each GBP into SGD 0.4751 (1/2.1050) today. The SGD amount will be invested for twelve months resulting in the investment growing to SGD 0.5098 (0.4751 × 1.045). After twelve months have elapsed, SGDs will be sold at the forward rate generating GBP 1.0079 (SGD 0.5098 × 2.0303). This translates into a domestic return of 7.9%.

34. In context of the gains from global trading, a country:

    A. decreases its welfare by solely focusing on producing the good in which it has a comparative advantage.
    B. which does not have an absolute advantage cannot gain from trading goods in which it has a comparative advantage.
    C. can earn higher trading gains if the difference between the world price of a good or service and autarkic price is increased.

    Correct Answer: C

Reference:
CFA Level 1, Volume 2, Study Session 6, Reading 20, LOS e

A country can expect it enhance its gains from trading the greater the difference between the world price and autarkic price.

A country that does not have an absolute advantage can gain from trading goods in which it has a comparative advantage; this is because comparative advantage depends on the relative costs of producing a good for export and that which is imported from another country. If a country can produce a good or provide a service at a cost lower than its trading partner, it has a comparative advantage.

A country increases its welfare by specializing in the production of good or provision of service in which it has a comparative advantage. This is because it now consumes at a higher point, which is on the world price line as well as on a higher indifference curve.

35. The exhibit below illustrates the transactions in a country's balance of payment account for the fiscal year 2013:

	Amount ($ millions)
Foreign remittances by non-resident citizens	14.5
Dividend income on foreign equity investments	8.6
Acquisition of natural gas extraction rights	2.5
Total gift taxes	3.4
Exports of goods and services	22.7
Foreign owned assets in the country	44.9

Based on the information provided, the current account balance is *closest* to:

A. $16.8 million.
B. $45.8 million.
C. $49.2 million.

Correct Answer: B

Reference:
CFA Level 1, Volume 2, Study Session 6, Reading 20, LOS g

Current account balance =
Foreign remittances by non-resident citizens + Dividend income on foreign equity investments + Exports of goods and services

Current account balance = $(14.5 + 8.6 + 22.7) million = $45.8 million

36. The government of a developing country intends to increase domestic savings by reducing the budget deficit. The impact of the government's proposed plans on the current account balance is *most likely*:

    A. neutral.
    B. a decrease.
    C. an increase.

Correct Answer: B

Reference:
CFA Level 1, Volume 2, Study Session 6, Reading 20, LOS h

A plan to reduce the budget deficit (and increase domestic savings) will increase the current account balance as seen by the equation, $CA = S_P - I + (T - G - R)$, where the expression $(T - G - R)$ is the government surplus or savings. A combination of tax increases, reduced government spending, and/or lower net transfers to the private sector will achieve this purpose.

37. A key function of the International Monetary Fund (IMF) is to:

    A. ensure the stability of international payments.
    B. regulate cross-border transactions on a global scale.
    C. develop robust financial systems which support lending arrangements.

Correct Answer: A

Reference:
CFA Level 1, Volume 2, Study Session 6, Reading 20, LOS i

A key function of the IMF is to support an open system of international payments by ensuring its stability.

A key function of the World Bank Group is to develop robust financial systems, which support activities ranging from micro credit to financing large corporate ventures.

The World Trade Organization is the only international body that regulates cross-border trade relations among nations on a global scale.

38. A firm can increase aggregate supply in the:

    A. short run by increasing physical capital stock.
    B. very short run without adjusting output prices.
    C. long run by increasing wages in line with the aggregate price level changes.

Correct Answer: B

Reference:
CFA Level 1, Volume 2, Study Session 5, Reading 17, LOS g

In the very short run a company can increase or decrease output without changing aggregate prices as evidenced by the horizontal very short run aggregate supply curve.

Over the short run, the aggregate supply curve is upward sloping. Despite more costs becoming variable, physical capital stock is one input, which will remain fixed until a few decades have elapsed.

In the long run, wages and other input prices change proportionally so that the aggregate price level has no impact on aggregate supply. This is illustrated by a vertical long run aggregate supply curve where an increase in the price level will have no impact on output.

39. Ecrot is a manufacturer of computers. The exhibit below highlights the aggregate sum of production for the firm as well as the quantity of labor employed in the process.

Exhibit:
Labor and Aggregate Production Data

Labour (L)	Aggregate Sum of Production
0	-
1	150
2	260
3	390
4	450
5	505
6	535

Ecrot's marginal return is maximized when the maximum number of workers employed is no more than:

A. 3.
B. 4.
C. 6.

Correct Answer: A

Reference:
CFA Level 1, Volume 2, Study Session 4, Reading 15, LOS d

Marginal return is measured as the change in marginal product from adding an additional unit of labor.

Marginal return or product is maximized when the number of workers employed is no more than 3.

Marginal return = (390 – 260)/(3 – 2) = 130 units

40. Janice Lee is a British investor seeking to purchase U.S. small-cap equities in a year's time. The current GBP/USD nominal spot exchange rate is 0.9055 and is forecasted to rise by 8% while Lee expects her real purchasing power to increase by 15% by year end.

If the price of U.S. goods is expected to increase by 3%, the British price level is forecasted to:

A. decline by 3.27%.
B. decline by 15.00%.
C. increase by 30.87%.

Correct Answer: A

Reference:
CFA Level 1, Volume 2, Study Session 6, Reading 21, LOS a

Based on the percentage change in real purchasing power (- 15%) or increase in real exchange rate, the British price level is forecasted to decline by 3.27%.

Percentage change in real exchange rate = $(1+8\%)\times\frac{[1+3\%]}{[1+x\%]}-1=15\%$

x% = - 3.27%

41. An exchange rate dealer based in France has quoted the following exchange rates:

	Exchange Rate Quotation
EUR/USD	1.3718
EUR/GBP	0.8178
EUR/BRL	3.0214

Another dealer has quoted a USD/BRL cross rate of 2.8963. A French investor can exploit the arbitrage opportunity and earn a profit of:

A. USD 69,380 per BRL 100,000 traded.
B. BRL 69,380 per USD 100,000 traded.
C. BRL 124,846 per USD 100,000 traded.

Correct Answer: A

Reference:
CFA Level 1, Volume 2, Study Session 6, Reading 21, LOS d

The USD/BRL cross rate quoted by the original dealer is equal to 2.2025:
USD/BRL = (1/1.3718) × 3.0214 = 2.2025

The investor will buy BRL from the original dealer and sell BRL to the dealer quoting a rate of 2.8963 thereby earning an arbitrage profit of USD 69,380 [(2.8963 – 2.2025) × BRL 100,000].

The investor can earn an arbitrage profit of USD 289,693 per BRL 100,000 traded.

42. With respect to the impact of fiscal policy on aggregate demand:

A. Monetarists forecast the effects as powerful.
B. Keynesians believe that the effect is only temporary.
C. Keynesians forecast a powerful effect subject to the spare capacity in an economy.

Correct Answer: C

Reference:
CFA Level 1, Volume 2, Study Session 5, Reading 19, LOS n

With respect to the impact of fiscal policy on aggregate demand, Keynesians believe that the impact is powerful when there is substantial spare capacity in an economy. Monetarists believe that fiscal policy changes only have a temporary effect on aggregate demand.

43. An economist has forecasted that a country's economy can grow credibly over the long-term at a sustainable rate of 1.8% per year. The country's inflation target is 2.0% and the central bank has announced its intention to implement an expansionary monetary policy.

To implement the stated policy, the policy rate should *most likely*:

A. exceed 3.8%.
B. not exceed 2.0%.
C. not exceed 3.8%.

Correct Answer: C

Reference:
CFA Level 1, Volume 2, Study Session 5, Reading 19, LOS k

The central bank's monetary policy will be expansionary if the policy rate is below the neutral rate, 3.8% (1.8% + 2.0%).

44. Debora Eaton is analyzing money supply and demand in the nation of Nigeria. Based on her preliminary findings, Eaton has determined that the interest rate where there will be no excess money balances is 6.5%.

Holding all else constant, if bonds offer an interest rate of 6.2%:

A. prices will increase.
B. supply will increase.
C. individuals will decrease their money holdings.

Correct Answer: B

Reference:
CFA Level 1, Volume 2, Study Session 5, Reading 19, LOS n

If bonds offer a rate below the equilibrium rate of interest, in this case below 6.5%, there would be an excess demand for money with individuals seeking to increase their money holdings as corporations and individuals sell their bonds. The higher selling activity will increase the supply of bonds. In doing so, the prices of bonds will fall and interest rate offered will increase until it reaches its equilibrium.

Questions 45 through 68 relate to Financial Reporting and Analysis

45. A deferred tax asset will result when the solution to the expression 'Income tax payable (for income tax purposes) – Income tax expense (on the income statement)' is:

    A. positive and the difference is due to temporary timing differences.
    B. positive and the difference is due to permanent timing differences.
    C. negative than income tax expense and the difference is due to temporary timing differences.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 3, Study Session 9, Reading 26, LOS e

    A deferred tax asset will result when income tax payable based on income for tax purposes exceeds income tax expense based on reported financial statement income (or is positive) and the difference is due to temporary timing differences.

46. Starred Limited redeems a portion of its bond issue prior to the stated maturity date. Which of the following statements *most* accurately highlights the effect of the redemption given the company complies with IFRS? Starred will:

    A. reduce bonds payable by the face value of the bonds redeemed.
    B. report the cash used for redemption as a cash outflow from financing activities.
    C. report the unamortized debt issuance costs as part of gain or loss on debt extinguishment.

    Correct Answer: B

    Reference:
    CFA Level I, Volume 3, Study Session 10, Reading 32, LOS c

Any cash used to redeem a bond issue will be reported as a financing cash outflow.

If a company redeems a bond issue prior to its maturity date, bonds payable is reduced by the carrying amount of the redeemed bonds. Given that debt issuance costs are recognized as part of the carrying amount of a liability, the unamortized debt issuance costs do not need to be reported in the income statement as part of gain or loss on debt extinguishment; this is because these unamortized costs are recognized when the difference between the carrying value and the cash paid to redeem the bonds is reported as a gain or loss on debt extinguishment.

47. In 2013 Maritime Inc.'s ROE ratio has increased by 30.7% from its 10.7% level in 2012. The exhibit below illustrates selective financial information concerning the company over the two years.

Exhibit:
Selective Financial Information for Maritime Inc.

	2013	2012
Return on assets	12.8%	10.3%
Total asset turnover	2.5	1.4
Average total assets	$12.1 million	$11.5 million
Average shareholders' equity	$11.1 million	$11.1 million
Tax rate	35%	30%

The increase in the company's ROE can *most likely* be attributed to an increase in:

A. the tax rate.
B. financial leverage of 5.2%.
C. net profit margin of 34.4%.

Correct Answer: B

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 28, LOS d

ROE = Return on assets × financial leverage

Financial leverage has increased from 1.036 ($11.5 million/$11.1 million) to 1.090 ($12.1 million/$11.1 million) or by 5.2% (1.090/1.036 – 1). An increase in financial leverage will increase ROE.

An increase in tax rate implies a decrease in tax burden, which in turn will decrease the ROE. An increase in the tax rate implies that a company will retain less of its pre-tax profits suggesting a decrease in after-tax profits.

Net profit margin = Return on assets ÷ Total asset turnover
Net profit margin (2013) = 12.8% ÷ 2.5 = 5.12%
Net profit margin (2012) = 10.3% ÷ 1.4 = 7.36%

Net profit margin has decreased by 30.04% (5.12%/7.36% - 1). A decrease in net profit margin will decrease ROE.

48. If a firm decides to use the straight-line method of depreciation instead of the accelerated method for a new piece of equipment, which of the following would *most likely* increase during the year of purchase?

A. Asset turnover.
B. Return on assets.
C. Operating profit margin.

Correct Answer: C

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 30, LOS e

With the straight line method, depreciation would decrease, and the operating profit margin would increase (since the operating profit would increase).

49. Dract Limited borrows $1.5 million to finance the construction of a processing facility that will have a useful life of 25 years at an interest rate of 6%. The construction will be completed in three years. Dract prepares and presents its financial statements in accordance with IFRS. Which of the following transactions will *most likely* be recorded in relation to the loan?

A. Interest costs of $90,000 will be capitalized.
B. Dract will classify $270,000 as an investing cash outflow.
C. At the end of the first year, depreciation expense will equal $60,000.

Correct Answer: B

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 30, LOS c

Interest costs that are incurred to finance the construction of the facility for company use are capitalized as part of the asset and amortization of these costs is recorded as part of depreciation expense.

Dract will capitalize borrowing costs of $270,000 ($1,500,000 × 6% × 3). Capitalized borrowing costs will be classified as an investing cash outflow. Annual amortization of the capitalized interest costs will equal to $3,600 [($1,500,000 × 0.06)/25]. These will be included in the depreciation expense related to the asset of $60,000 ($1,500,000/25).

50. With respect to the initial recognition of goodwill related to a business combination, a deferred tax liability is:

A. recognized only to the extent of subsequent impairment charges.
B. recognized only to the extent of the difference between the carrying amount and tax base.
C. not recognized for either the difference between the carrying and tax base or for subsequent impairment charges.

Correct Answer: C

Reference:
CFA Level I, Volume 3, Study Session 10, Reading 31, LOS f

With respect to initial recognition of goodwill, a deferred tax liability is not recognized for the difference between the tax base and carrying amount of an asset. Although impairment may lead to a temporary difference between the tax base and carrying amount of goodwill, there will be no deferred taxation because a deferred tax liability was not initially recognized.

51. The exhibit below illustrates the inventory purchase record for ABC Limited for the financial year 2012. The company uses the LIFO method of inventory accounting.

Exhibit:
Inventory Purchase Record for ABC Limited, Year 2012

Date		Units	Per Unit Amount (€)
	Beginning inventory	150	20
28 Jan	Purchases	20	24
15 Feb	Purchases	30	25
22 March	Sales	80	30
17 June	Purchases	30	28
20 September	Sales	100	30
9 November	Purchases	40	35

The cost of sales reported for the year is *closest* to:

A. €2,700.
B. €3,830.
C. €4,670.

Correct Answer: C

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 29, LOS c

Cost of sales reported under the LIFO method of inventory accounting comprises recent items of purchase.

In 2012, a total of 270 units (150 + 20 + 30 + 30 + 40) were available for sale and 180 units (100 + 80) were sold.

40 (9 November) × €35 = €1,400
30 (17 June) × €28 = €840
30 (15 February) × €25 = €750
20 (28 January) × €24 = €480
60 (Beginning inventory) × €20 = €1,200
Cost of sales = €1,400 + €840 + €750 + €480 + €1,200 = €4,670

52. A financial analyst has tabulated the following data for a large-cap firm:

Beginning shareholder's equity	$245 million
Dividends	$23 million
Ending shareholder's equity	$475 million
Net Income	$67 million
Repurchase of common stock	$0

The firm's other comprehensive income is *closest* to:

A. $0.
B. $186 million.
C. $297 million.

Correct Answer: B

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 25, LOS l

475-[245+67-23) = $186 million has bypassed the income stated and is therefore other comprehensive income.

53. Kayle Limited purchased an automated box stamping machine for $4,000. The original useful life and salvage value of the machine is 10 years and $800, respectively. Rob Marshall would like to evaluate the impact of the depreciation methods on the company's operating profit margin. During the first year of purchase, Kayle Limited reported revenues of $25,000 while earnings before interest, tax, depreciation and amortization (EBITDA) was $12,000.

The operating profit margin (EBIT/revenues) reported under the straight-line method and double declining method of depreciation, respectively, in the first year of the machine's operations is *closest* to:

	Straight-line method:	Double-declining method:
A.	46.72%	44.80%.
B.	46.72%	46.40%.
C.	48.00%	45.44%.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 30, LOS d

Depreciation expense (straight line) = ($4,000 – $800)/10 = $320

Depreciation expense (double-declining method) = (100%/10 × 2) × $4,000 = $800

Operating profit margin (straight-line) = ($12,000 – $320)/$25,000 = 0.4672 or 46.72%

Operating profit margin (double-declining) = ($12,000 – $800)/$25,000 = 0.44800 or 44.80%

54. Which of the following statements accurately address the differences between income tax accounting under IFRS and U.S. GAAP?

    A. Deferred income taxes related to the revaluation of property, plant and equipment are recognized in equity under IFRS only.
    B. Deferred tax assets related to a step-up in the value of an acquired asset to fair value in a business combination are recognized under IFRS only.
    C. Unlike IFRS, which require a full provision to be recognized for deferred income taxes, U.S. GAAP require a provision to be recognized to the extent of recoverability of deferred taxes.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 3, Study Session 10, Reading 31, LOS j

    Given that the revaluation model is only permitted under IFRS any related deferred tax is recognized in equity. The recognition of deferred taxes related to revaluation is not applicable under U.S. GAAP; this is because revaluation is prohibited.

    The general approach to the recognition of deferred taxes is making a full provision under both IFRS and U.S. GAAP.

    Deferred tax assets related to a step-up in the valuation of assets to fair value at the time of a business combination are required to be recognized under both IRFS and U.S. GAAP.

55. In the financial year 2010, a company reported accounting profit and taxable income of $150,000 and $147,400, respectively. In addition, the company received $8,500 in tax refunds during the year while its deferred tax liabilities account increased by $2,500. The company paid $42,000 in taxes. The applicable tax rate is 25%.

    Income tax expense for the year 2010 is *closest* to:

    A. $36,850.
    B. $39,350.
    C. $42,000.

Correct Answer: B

Reference:
CFA Level I, Volume 3, Study Session 10, Reading 31, LOS d

Income tax expense = Income tax payable + changes in deferred tax asset and liability

Income tax expense = (\$147,400 × 0.25) + \$2,500 = \$39,350

56. Which of the following is *most likely* an example of a positive covenant?

    A. The company must maintain a minimum interest coverage ratio of 2.0 times.
    B. Lender consent must be sought prior to undertaking any factory expansion projects.
    C. Dividends can only be paid if the company generates a minimum net profit margin of 25%.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 32, LOS d

The requirement to maintain a specified interest coverage ratio is an example of a positive covenant; this is because it requires the company to take certain actions.

Acquiring lender consent prior to undertaking factory expansion is an example of a negative covenant; this is because it restricts the company's ability to take certain actions. Similarly a covenant restricting the payment of dividends is negative in nature due to its restrictive nature.

57. An upward revaluation of a long-lived asset is treated in the same way as:

A. a downward revaluation
B. the reversal of a revaluation decrease.
C. the amount in excess of the revaluation reversal amount.

Correct Answer: C

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 30, LOS g

An upward revaluation is treated the same as the amount in excess of the revaluation reversal amount. The excess will be recorded directly to equity and not in the income statement.

58. Which of the following features is *most likely* a general requirement highlighted by the Conceptual Framework with respect to the preparation of financial statements according to IFRS?

A. Fair value
B. Timeliness
C. Consistency

Correct Answer: C

Reference:
CFA Level I, Volume 3, Study Session 7, Reading 24, LOS e

According to the features laid out in the Conceptual Framework by IAS 1, the presentation and classification of financial statements must be retained from one period to the next; that is, financial statements should be consistent.

Fair value is a basis of measurement while timeliness is one of the characteristics laid out by the Conceptual Framework, which enhances the usefulness of relevant and faithfully represented financial information.

59. In 2010, Horizon Inc. sold real estate property worth $150,000 to Homestead receiving a down payment of $15,000. The remainder of the sales price is to be paid over an eight year period. Horizon Inc. purchased the property in the year 2000 when the original cost was $130,000.

Under the cost recovery method, the profit to be recognized by Horizon Inc. in the year 2010 is *closest* to:

A. $0.
B. $15,000.
C. $20,000.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 7, Reading 25, LOS c

Since the cash received from the buyer is less than the seller's cost of the property in the year 2010, no profit will be recognized under the cost recovery method.

60. Defensive interval ratios measure:

A. solvency.
B. a company's creditworthiness.
C. how long a company can rely on cash reserves to pay daily cash expenditures.

Correct Answer: C

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 28, LOS b

Defensive interval ratios are an example of liquidity ratios, which measure a company's ability to meet its short-term obligations. Defensive interval ratios, in particular, measure how long a company can pay its daily cash expenditures using only its liquid assets (which include cash reserves), without additional cash flow coming in.

61. In the year 2013, Time Corp. reports net income of €2.50 million and has 300,000 weighted average number of shares outstanding. At the beginning of the year the company had 30,000 options with an exercise price of €20. The company's market price averaged €30 per share over the fiscal year.

Time Corp's diluted EPS based on the treasury stock method is *closest* to:

A. 8.06.
B. 8.62.
C. 8.33.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 7, Reading 25, LOS g

The treasury stock method assumes that the company receives €600,000 (30,000 × €20) upon the exercise of the options. Using these proceeds, the company can repurchase 20,000 (600,000/€30) shares at the current market price. Thus, the incremental number of shares issued is 10,000 (30,000 – 20,000).

Diluted EPS = €2,500,000/(300,000 + 10,000) = 8.06

62. Which of the following statements *most* accurately explains the treatment of costs associated with internally developing intangible assets? These costs are:

A. generally capitalized.
B. treated as investing cash outflows.
C. expensed under U.S. GAAP if they relate to research and development.

Correct Answer: C

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 30, LOS b

Research and development costs, which classify as costs associated with internally developing intangible assets, are expensed under U.S. GAAP.
The costs associated with internally developing intangible assets are generally expensed as incurred and classified as operating cash outflows.

63. The exhibit below highlights selective balance sheet information for Rictor Corp. for the financial year 2013.

Exhibit:

	$ millions
Accounts payables	100
Current portion of long-term debt	65
Other current liabilities	90
Long-term debt	160
Common stock	650
Retained earnings	95

The debt to equity ratio is *closest* to:

A. 0.30.
B. 0.35.
C. 0.56.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 26, LOS i

All $ figures are in millions.

Debt to equity ratio = ($65 + $160)/($650 + $95) = 0.30

64. The exhibit below illustrates selective financial information for Mono Capital between the financial years 2012 and 2013. Monroe reported net income of \$280,000 in the year 2013.

Exhibit

$ Millions	2013	2012
Accounts receivable	25	30
Inventory	35	29
Prepaid expenses	12	8
Accounts payable	30	22
Taxes payable	8	6
Depreciation	16	12
Dividends paid	6	4

The total adjustment required to determine cash flow from operations from net income can be determined by adding:

A. \$5 million.
B. \$21 million.
C. \$25 million.

Correct Answer: B

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 27, LOS f

All $ figures are in millions.
Adjustment required = (\$30 – \$25) + (\$29 – \$35) + (\$8 – \$12) + (\$30 – \$22) + (\$8 – \$6) + \$16

Total adjustment required = Add \$21

65. Bonds issued at a premium:

A. have a carrying value which declines over the term to maturity.
B. have a reported interest expense which is higher than interest payments.
C. should be amortized using the straight-line method which better reflects the economic substance of the transaction.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 32, LOS b

Bonds issued at a premium have an initial carrying amount greater than the face value. As the premium is amortized, the carrying amount declines to face value. Bonds issued at a premium have a coupon rate, which is higher than the market rate in effect at the time of issuance; the latter rate being used to calculate interest expense. Therefore, interest expense is lower than the interest payments required on these bonds.

In general, the effective interest rate method is preferred for amortizing premiums and discounts as it better reflects the economic substance of a transaction relative to the straight-line method.

66. On January 1, 2013, the carrying amount of inventory on Alliance Manufacturers' balance sheet is $128,750. Donna Wells, the company's procurement manager, assesses that net realizable value is $119,352 at the time. On December 31, 2013 Wells makes a reassessment and finds that net realizable value has increased to $130,450. Alliance Manufacturers prepares and presents its financial statements in accordance with IFRS.

The subsequent increase in net realizable value will *most likely*:

A. increase gross profit by $9,398.
B. increase gross profit by $11,098.
C. not be accounted for as reversals of inventory write-downs are not permitted.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 29, LOS f

IFRS permit the reversal of inventory write-downs. However, the reversal is limited to amount of the original write-down that is equal to $9,398 ($128,750 – $119,352). A subsequent increase in inventory value of $11,098 ($130,450 – $119,352) exceeds the amount of the original write-down; thus a reversal amounting to $9,398 will be reflected as a reduction in cost of sales (or increase in gross profit).

67. An auditor who concludes that a company's financial statements are not fairly presented will *most likely* issue a (n):

    A. adverse opinion.
    B. qualified opinion.
    C. unqualified opinion.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 7, Reading 22, LOS d

An adverse opinion is issued when an auditor believes a company's financial statements are not fairly presented.

A qualified opinion is issued when an auditor believes there is a scope limitation or exception to accounting standards.

An unqualified opinion states that financial statements "give a true and fair view" or are "fairly presented".

68. Debra Toe, CFA, is an independent financial analyst who is evaluating the financial reporting quality of Summit Lark. Based on preliminary analysis, Toe suspects Lark's financial statements are lacking in financial quality. She has collected relevant financial information for the analysis (Exhibit).

Exhibit:
Relevant Financial Information Concerning Summit Lark (Financial Years 2012 to 2013)

$ Millions	2013	2012
Revenue	45	39
Net income	27	21
Operating cash flows	65	72
Inventory	10	14
Total assets	80	65

Which of the following conclusions is *most* probable based on the information presented?

A. Lark's efficiency is declining.
B. Lark may find it difficult to raise new equity capital.
C. The decline in inventory is higher than the increase in sales indicating that revenues are reported aggressively.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 9, Reading 28, LOS c

The increase in total assets of 23.08% [($80/$65 – 1) × 100] is greater than the increase in revenues of 15.38% [($45/$39 - 1) × 100]. This indicates that the Lark's efficiency is declining as the assets are not generating as much revenues.

The impact of a change in Lark's ability to raise new equity capital cannot be determined based on the limited information presented.

The decline in inventory of 28.6% [($10/$14 – 1) × 100] is higher than the increase in revenues of 15.38% [($45/$39 – 1) × 100]. This could indicate that the company has written-down a portion of its inventory as the decline in inventory is not translating into the same level of sales growth. Alternatively this may indicate conservative reporting of revenues.

Questions 69 through 76 relate to Corporate Finance

69. Smithline Corp.'s total market value of equity equals $45 million while the market value of debt equals $30 million. The relevant tax rate for the corporation is 30% while the equity beta is 1.893.

Smithline Corp's unlevered beta is *closest* to:

A. 1.29.
B. 1.89.
C. 2.78.

Correct Answer: A

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 36, LOS i

Unlevered beta is also known as the asset beta.

$$\beta_{asset} = \beta_{equity}\left[\frac{1}{1+\left((1-t)\frac{D}{E}\right)}\right] = 1.893\left[\frac{1}{1+\left((1-0.3)\frac{\$30}{\$45}\right)}\right] = 1.2907 \text{ or } 1.29$$

70. Line Corporation will be investing €100 million in a new research facility. The facility is expected to generate cash flows of €30 million per year for the next eight years. The company's weighted average cost of capital is 7.5%. Line has 5 million shares outstanding each of which has a current market price of €26.50. The company's earnings yield is 8.00%.

The impact of the investment on Line's stock price is *most likely*:

A. a decrease of €1.77.
B. an increase of €15.14.
C. an increase of €41.64.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 35, LOS f

Based on the cash flow and discount rate data provided, the NPV of the project is €75.7191 million.

The market value of the company prior to undertaking the project is €132.50 million (5 × €26.50) while by undertaking the project the value of the company should increase by €75.7191 to €208.2191 million.

The price per share will increase by an amount equal to the NPV per share €75.7191 million/5 million = €15.1438.

71. A company that operates with a high proportion of fixed costs in its cost structure is said to have a high level of:

A. sales risk.
B. financial risk.
C. business risk.

Correct Answer: C

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 37, LOS a

Business risk is the risk associated with operating earnings. Operating earnings may be risky because the cost of producing revenues is risky as are total revenues. Therefore, business risk comprises of sales and operating risk. Operating risk is the risk attributed to a company's operating structure. The greater the fixed component of costs, the greater the operating risk.

Sales risk is the risk associated with the price and quantity of goods and services.

72. The HR Fund is seeking to include a short-term instrument in its investment portfolio. The fund's chief investment officer has identified an instrument with the following characteristics:

- low degree of liquidity risk;
- insignificant credit risk; and
- interest bearing with attractive yields.

The instrument identified is *most likely* a:

A. U.S. Treasury bill.
B. commercial paper.
C. federal agency security.

Correct Answer: C

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 39, LOS g

The identified instrument is a federal agency security, which typically carries low liquidity risk and has insignificant credit risk. These securities offer yields higher than U.S. Treasuries making them an attractive form of investment.

Traded U.S. Treasury bills have low rates. In addition, they entail virtually no risk.

73. Stole Limited is selling 300,000 units at a price of $40/unit. Total fixed and variable costs are $8.5 million and $6.6 million respectively. The company's total financial costs are equal to $2.5 million.

The level of sales units at the operating breakeven point and breakeven point, respectively, is:

A. 366,667 and 505,556.
B. 472,222 and 611,111.
C. 611,111 and 611,111.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 37, LOS d & e

Operating breakeven (Q_{OBE}) = $\frac{F}{P-V} = \frac{\$8{,}500{,}000}{40-\frac{\$6{,}600{,}000}{300{,}000}} = 472{,}222\ units$

Breakeven point (Q_{BE}) = $\frac{F+C}{P-V} = \frac{\$8{,}500{,}000 + \$2{,}500{,}000}{40-\left(\frac{\$6{,}600{,}000}{300{,}000}\right)}$= 611,111 units

74. The length of a company's operating cycle has increased in the current year. Which of the following statements *most* accurately justifies the reason for this increase?

A. The company's inventory balance has decreased.
B. The company is taking advantage of early payment discounts.
C. The average number of days to collect payments from customers has increased.

Correct Answer: C

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 39, LOS c

Operating cycle = Number of days of receivables + number of days in inventory

An increase in the number of days to collect accounts receivables signals an increase in the number of days of receivables.

The number of days of inventory is measured as inventory divided by average day's cost of goods sold. A lower inventory balance signals a lower measure and a decline in the cash operating cycle.

The number of days of payables does not feature in the calculation of operating cycle.

75. Maritime Inc., a component manufacturer, has announced a repurchase of 800,000 shares at the prevailing market price of $10. Maritime has 3 million ordinary shares outstanding at the time of repurchase. The company's reported assets and liabilities are $40.0 million and $20.5 million, respectively.

How will the share repurchase affect Maritime's book value per share? The book value per share will:

A. increase by 9.1%.
B. decrease by 19.6%.
C. decrease by 61.7%.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 38, LOS e

Pre-buyback book value per share = ($40.0 million – $20.5 million)/3 million = $6.5

The buyback will reduce book value of equity by $8 million (800,000 × $10) to $11.50 million ($19.5 million – $8.0 million) and the number of shares outstanding by 0.80 million to 2.20 million.

Thus, book value per share will decrease to $5.227 ($11.50 million/2.20 million) or by 19.6% ($5.227/$6.50 – 1).

76. Which of the following shareowner policies is *most* consistent with good corporate governance practices?

A. Investors are given three days to cast their votes via proxies.
B. A company transfers all voting records to a third party agent.
C. In a company with dual classes of shares, a majority of the voting rights is owned by one class of shareowners.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 11, Reading 40, Pages 222-224, LOS g

Using a third party agent to retain voting records is consistent with the corporate governance codes of best practice.

Giving shareowners only three days to cast votes via proxies is not sufficient time; this makes it difficult for shareowners to vote their common shares.

Giving the voting rights to one class of shareowners when a company has dual classes may create a situation in which the management and board disproportionately focus on the interests of those shareowners.

Questions 77 through 88 relate to Equity Investments

77. Green Associates does not currently pay dividends but is expected to do so in three years' time when the dividend per share is expected to $6.50 and will grow at a perpetual rate of 3% thereon. Green Associate's required rate of return is 10%.

    The intrinsic value of Green Associate's stock is *closest* to:

    A. $71.86.
    B. $76.74.
    C. $95.64.

    Correct Answer: B

    Reference:
    CFA Level 1, Volume 4, Study Session 14, Reading 50, LOS e

    The dividend payment streams will need to be split into two segments with the second representing the time period when dividend per share is perpetual. Using the Gordon growth model, the present value of the dividend payment stream at t = 0 is determined as follows:

    $V_3 = [D_0 (1 + g)]/(r – g) = (\$6.50)(1.03)/(0.10 – 0.03) = \$95.6429$

    $V_0 = \$95.6429/(1 + 0.10)^3 = \$71.86$

    The first segment is represents the present value of the $6.50 dividend not considered in the calculation:

    $\$6.50/(1.10)^3 = \$4.88$
    Intrinsic value = $71.86 + $4.88 = $76.74

78. Joyce Inc., a Japanese automaker, is seeking to offer its shares in overseas markets. The management proposed to consider an intermediary to issue shares in foreign markets using a global sponsored depository receipt (DR).

The chosen method will:

A. expose overseas investors to considerable foreign exchange risk.
B. not allow Joyce Inc. to participate in the issuance of depository receipts.
C. grant participating investors the same voting rights as the direct owners of the common shares.

Correct Answer: C

Reference:
CFA Level 1, Volume 4, Study Session 14, Reading 48, LOS d

A sponsored DR will allow participating investors to have the same rights as the direct owners of the common shares. In addition, the foreign company whose shares are held by the depository institution will have a direct involvement in the issuance of the receipts.

Participating investors will need to worry less about foreign exchange risk as price quotations and dividend payments are in their local currency.

79. A trader purchases a share of stock on margin at its current market price of $80. The initial margin requirement is 30%.

The margin requirement for each share of stock is *closest* to:

A. $24.
B. $56.
C. $80.

Correct Answer: A

Reference:
CFA Level 1, Volume 4, Study Session 13, Reading 45, LOS f

If the market price declines, the trader will incur a loss on the position. To prevent this from occurring, the trader should retain a minimum amount as equity in its position as margin.

Margin requirement = 30% × \$80 = \$24.

80. Gene Saunders has purchased a stock using \$15 of her funds and \$30 of borrowed funds. One month after making the investment, the stock falls by 15% in value. Her financing mix meets minimum margin requirements.

The initial margin and unannualized return on investment, before considering the payment of fees and commissions, is *closest* to:

A. 33.3% and – 22.5% respectively.
B. 33.3% and – 45.0% respectively.
C. 50.0% and – 15.0% respectively.

Correct Answer: B

Reference:
CFA Level 1, Volume 4, Study Session 13, Reading 45, LOS f

The use of leverage magnifies the gain/loss on an investment.
Percentage equity or initial margin = \$15 ÷ (\$30 + \$15) = 0.3333
Leverage = 100% position ÷ (33.33% equity) = 3.0
Return on investment = 3.0 × (- 15%) = - 45%

81. Which of the following features *most likely* distinguishes common and preference shares?

A. Voting rights
B. Perpetual maturity dates
C. Presence of embedded options

Correct Answer: A

Reference:
CFA Level 1, Volume 4, Study Session 14, Reading 48, LOS b

Preference shareholders usually do not have voting rights while common shareholders do. On the other hand, similar to common shares, preference shares can have perpetual maturity dates and contain embedded options, call or put options.

82. Which of the following industries is *least likely* cyclical in nature?

A. Autos
B. Utilities
C. Technology

Correct Answer: B

Reference:
CFA Level 1, Volume 4, Study Session 14, Reading 49, LOS b

A cyclical industry’s profitability is strongly correlated with the strength of the overall economy. Cyclical products and services are often relatively expensive and/or their purchase can be delayed if necessary. Cyclical industries include autos and technology.

A noncyclical industry’s performance is independent of the business cycle. Non-cyclical companies produce goods and services with relatively stable demand. Examples include utilities.

83. For one of her equity investments, investor Carol March has specified a GTC, stop 120, limit 95 sell order. The original purchase price of her investment was $150. If the price of the stock declines below $120, March’s GTC order will *most likely*:

A. not be executed.
B. be executed and her maximum loss will be $25.
C. be executed and her maximum loss will be $55.

Correct Answer: C

Reference:
CFA Level 1, Volume 4, Study Session 13, Reading 45, LOS g

A GTC, stop 120, limit 95 sell order will be executed once the limit price falls below $120 to limit any potential losses on the trade. The stop limit sell order will limit the fall in price to $95. Thus, potential losses are limited to $55 ($150 – $95).

84. Which of the following reasons *least likely* justifies why companies operating in an industry with high barriers to entry have low pricing power?

A. They are relatively new and lack a good track record.
B. Barriers to exit are high making overcapacity highly likely.
C. Price is a large component of a buyer's purchase decision.

Correct Answer: A

Reference:
CFA Level 1, Volume 4, Study Session 14, Reading 49, LOS g

Being new to an industry with low barriers to entry does not automatically guarantee success. Therefore, this supports the fact that low barriers to entry should not be equated with low barriers to success as opposed companies operating in an industry with high barriers to entry having low pricing power.

When barriers to exit are high, companies may not be able to exit the industry without incurring significant capital costs by redeploying capital, for example. Therefore, these companies may continue to operate their loss-making plants prolonging conditions of overcapacity.

When price is a large component of the purchase decision, companies will have a limited ability to influence price at a level necessary to generate healthy profits.

85. Jones Davenport submits a sell order for 12 contracts with a limit price of $25.7. The market's limit order book immediately prior to Davenport's order is as follows:

Buyer	Bid size	Limit Price (€)	Offer Size	Seller
Martin	4	25.6		
Smith	2	25.7		
Peterson	7	25.8		
		25.9	6	Hill
		26.0	8	Ali
		26.1	10	Khan

Davenport's average trade price is *closest* to:

A. €25.73.
B. €25.78.
C. €25.95.

Correct Answer: B

Reference:
CFA Level 1, Volume 4, Study Session 13, Reading 45, LOS i

Daveport's order will be first executed at the most aggressively priced buy order; that is, 7 contracts will be sold to Peterson at a price of €25.8. Davenport has five contracts remaining and two of these contracts will be sold to Smith at the next most aggressively priced sell order; the limit price will be €25.7. Davenport has three contracts remaining but these will not be sold to Martin as the price is lower than the trader's limit price.

Average trade price = [(7 × €25.8) + (2 × €25.7)]/9 = €25.78

86. The Gordon growth model cannot be used to estimate intrinsic value if the associated company:

A. is rapidly growing.
B. assumes a perpetual dividend growth rate.
C. retains a portion of its profits for reinvestment purposes.

Correct Answer: A

Reference:
CFA Level 1, Volume 4, Study Session 14, Reading 50, LOS e & f

The Gordon growth model assumes that the dividend growth rate is perpetual and never changes; therefore, the model cannot be used if a company is rapidly growing; i.e. does not have a stable dividend growth rate.The Gordon growth model can be applied if the company retains a portion of its profits for reinvestment as long as this amount is kept constant and does not result in fluctuating dividend payments.

87. The exhibit below summarizes information concerning a market-capitalization weighted index:

Stock	Beginning of period price per share ($)	Dividends per share ($)	End of period price per share ($)	Shares outstanding
A	120	50	140	45,570
B	200	25	250	59,650
C	180	30	160	112,740
Total				217,960

The price return on the market-capitalization weighted index is *closest* to:

A. 4.08%.
B. 4.35%.
C. 6.49%.

Correct Answer: B

Reference:
CFA Level 1, Volume 4, Study Session 13, Reading 46, LOS b

Price return = (End of period value – beginning of period value)/beginning of period value

Beginning of period value = ($120 × 45,570) + ($200 × 59,650) + ($180 × 112,740) = $37,691,600

End of period value = ($140 × 45,570) + ($250 × 59,650) + ($160 × 112,740) = $39,330,700

Price return = ($39,330,700 – $37,691,600)/$37,691,600 = 4.35%

88. Greenex Inc.'s option-free perpetual preferred stock is currently selling in the market for $945.63. The annual dividend rate is quoted at 5.5% and the par value of the stock is $1,000. If the stock is fairly valued, the required rate of return should be *closest* to:

A. 5.20%.
B. 5.50%.
C. 5.82%.

Correct Answer: C

Reference:
CFA Level 1, Volume 4, Study Session 14, Reading 50, LOS d

If the stock is fairly valued, the intrinsic value should equal to the current market price of $945.63.

Intrinsic value = Annual dividend/r
r = $55/$945.63 = 5.82%

Questions 89 through 94 relate to Derivative Investments

89. An investor who goes long an equity forward contract on a total return stock index will be concerned about the management of:

    A. price risk.
    B. the uncertainty of dividends.
    C. both price risk and uncertainty of dividends.

    Correct Answer: C

    Reference:
    CFA Level 1, Volume 6, Study Session 17, Reading 57, LOS c

    The total return on the index and the forward contract payoff is based on the payment and reinvestment of dividends.

90. A long-term European put option will always be worth more than an otherwise identical short-term put option if:

    A. volatility is lower.
    B. interest rates are lower.
    C. interest rates are higher.

    Correct Answer: B

    Reference:
    CFA Level 1, Volume 6, Study Session 17, Reading 58, LOS i

    A long-term European put option will be worth more than an otherwise identical short-term put option if interest rates are lower and volatility is higher. Since European options can only be exercised on their expiration date, a longer time to expiration suggests that the option holder will need to wait longer to receive money from the sale of the underlying. The lost interest will be a disadvantage of the additional time; lower interest rates will reduce this lost interest. Higher volatility will increase the chances that the underlying price will move in favor of the option holder.

91. Call options are primarily purchased by investors who are:

A. bullish.
B. bearish.
C. risk-averse.

Correct Answer: A

Reference:
CFA Level 1, Volume 6, Study Session 17, Reading 59, LOS a

Call options have an unlimited upside profit potential and losses are limited to the premium paid. Call options are thus preferred by investors who are bullish and anticipate an increase in asset price. Furthermore, call options entice speculators.

92. An investor purchased a stock several months ago for $85 currently selling for $98. A call option selling for $7 has an exercise price of $101. If the price of share at expiration is $107, the value of the covered call position for the investor is *closest* to:

A. $91
B. $100
C. $101

Correct Answer: C

Reference:
CFA Level 1, Volume 6, Study Session 17, Reading 59, LOS b

$V_T = S_T – \max(0, S_T - X) = 107 – \max(0, 107 - 101) = 107 – 6 = 101$

93. The maximum loss for the holder of protective put position is equal to:

A. exercise price –option premium.
B. exercise price – underlying price + option premium.
C. cost of the underlying + option premium – exercise price.

Correct Answer: C

Reference:

CFA Level 1, Volume 6, Study Session 17, Reading 59, LOS b

The maximum loss for the holder of protective put position = cost of the underlying + option premium – exercise price.

94. The minimum value of which of the following is the maximum of zero and the underlying price minus the present value of the exercise price?

A. European call
B. European put
C. Protective put

Correct Answer: A

Reference:
CFA Level 1, Volume 6, Study Session 17, Reading 58, LOS i

The minimum value of a European call is the maximum of zero and the underlying price minus the present value of the exercise price.

Question 95 through 106 relate to Fixed Income Investments

95. Alpha and Beta, manufacturing entities, are identical in all respects except for industry cyclicality. Alpha operates in a cyclical industry while Beta operates in a non-cyclical industry. If both companies increase their leverage levels by 10%, credit risk will be:

    A. higher for Beta.
    B. nearly identical.
    C. higher for Alpha.

    Correct Answer: C

    Reference:
    CFA Level I, Volume 5, Study Session 16, Reading 56, LOS e

    Credit risk will be higher for Alpha following an increase in leverage levels. Industries that are cyclical have more volatile revenues, margins and cash flows and are riskier than non-cyclical industries. Companies in cyclical industries should carry lower level of debt relative to their ability to generate cash flows over an economic cycle than companies in non-cyclical industries.

96. Green Associates owns a 3% semi-annual coupon paying, 4-year bond issue with a par value of $10,000 that is currently priced at $9,783.14. The annualized yield to maturity of the issue is *closest* to:

    A. 3.31%.
    B. 3.59%.
    C. 6.63%.

    Correct Answer: B

    Reference:
    CFA Level I, Volume 5, Study Session 15, Reading 53, LOS b

    Using the IRR function on the financial calculator, the semi-annual yield is 1.7934% and the annualized yield to maturity is 3.59%.

    $$97.8314 = \frac{1.50}{(1+r)^{1}} + \frac{1.50}{(1+r)^{2}} + ... + \frac{1.50}{(1+r)^{7}} + \frac{101.50}{(1+r)^{8}} = 0.017934$$

97. Rachel Lake is evaluating the potential for bond prices to change given the market discount rate. She derives the following conclusions:

Conclusion 1: The convexity effect can be observed as the tendency for bond prices to increase when market discount rates decrease.

Conclusion 2: For two bonds offering an identical coupon rate, the maturity effect results in the longer-term bond being more price-sensitive than a shorter-term bond when the change in market discount rates is identical.

Lake is *most likely* correct with respect to:

A. conclusion 1 only.
B. conclusion 2 only.
C. both the conclusions.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 15, Reading 53, LOS b

Lake is incorrect with respect to Conclusion 1 and correct with respect to Conclusion 2. Conclusion 1 describes the inverse effect. The convexity effect is described as the absolute percentage price change being greater when the market discount rate goes down than when it goes up.

The maturity effect results in the longer-term bond experiencing a greater percentage price change than a shorter-term bond when their coupons are identical and market discount rates change by the same amount. This implies that the longer-term bond is more price-sensitive.

98. The exhibit below summarizes selective financial information concerning a textile manufacturer for the year 2013.

Exhibit:

	$'000
Net income from continuing operations	450
Depreciation and amortization	18
Capital expenditures	7
Increase in non-cash working capital	70
Gains from sale of long-lived assets	12
Total debt	500

The manufacturer's FFO/total debt is *closest* to:

A. 0.758.
B. 0.772.
C. 0.912.

Correct Answer: C

Reference:
CFA Level I, Volume 5, Study Session 16, Reading 56, LOS f

All $ figures are in thousands
FFO = Net income from continuing operations + depreciation and amortization + non-cash items + deferred income taxes
FFO = $450 + $18 – $12 = $456
FFO/total debt = $456/$500 = 0.912

99. Bonds that are issued by the government and backed by tax revenues are *least likely* known as:

A. sovereign bonds.
B. non-sovereign bonds.
C. quassi-government bonds.

Correct Answer: C

Reference
CFA Level I, Volume 5, Study Session 15, Reading 52, LOS e

Because quassi government entities do not have direct taxing authority, bonds are repaid from cash flows generated from the project (s) the bond issue is financing. Non-sovereign bonds are financed by revenues collected by the taxing authority along with other sources.

Highly-rated sovereign bonds are backed by the taxing authority of the government with excess revenues over expenditures being used for making interest payments and repaying principal.

100. Lance Gibbons holds two fixed income securities, a corporate bond and a zero-coupon bond. Details concerning his investment are as follows:

- The zero-coupon bond matures in twelve years and is trading at a market discount rate of 5%.
- The corporate bond offers an annual coupon rate of 3.8%, matures in ten years and is trading at a market discount rate of 4.2%.

Which of the following statement is *most likely* correct regarding his investments?

A. Both bonds are selling at the same price.
B. The corporate bond is trading at a lower price.
C. The zero coupon bond is trading at a discount of $44.32.

Correct Answer: C

Reference:
CFA Level I, Volume 5, Study Session 15, Reading 53, LOS b

Based on the calculations below, the zero-coupon bond is trading at a discount of $44.32 while the corporate bond is trading at a relatively higher price ($96.788 vs. $55.6837 respectively).

101. A limitation of using the current yield to evaluate a fixed income security is that the measure ignores:

   A. weekends and holidays.
   B. the flat price of an issue.
   C. time value of coupon payments.

Correct Answer: C

Reference:
CFA Level I, Volume 5, Study Session 15, Reading 53, LOS f

The current yield does not consider the frequency of payments over the life of the issue nor does it consider the time value of coupon payments (i.e. payments received after an year).

The current yield is calculated as the sum of the coupon payments received over the year divided by the flat price.

The street convention yield-to-maturity is known to ignore weekends and holidays.

102. A 150-day money market instrument has an add-on rate of 6.50%. Assuming there are 360 days in a year, the bond equivalent yield of the instrument is *closest* to:

   A. 6.50%.
   B. 6.59%.
   C. 6.77%.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 15, Reading 53, LOS f

First, the redemption amount per 100 of the principal is determined.

$$\text{FV} = 100 + \left(100 \times \frac{150}{360} \times 0.065\right) = 102.7083$$

The bond-equivalent yield is the AOR quoted on a 365-day basis.

$$\text{AOR} = \left(\frac{365}{150}\right) \times \left(\frac{102.7083 - 100}{100}\right) = 0.065902 \text{ or } 6.59\%$$

103. James Cunningham is evaluating the factors that influence issue ratings. He has identified and described two factors which he has summarized below:

Factor 1: The higher the senior unsecured ranking, the lower the notching adjustment will be.

Factor 2: In the case of structural subordination, debt of the parent holding company is serviced before that of operating subsidiaries.

Cunningham is *most likely* correct with respect to:

A. factor 1 only.
B. factor 2 only.
C. both of the factors.

Correct Answer: A

Reference:
CFA Level I, Volume 5, Study Session 16, Reading 56, LOS c

Cunningham is correct with respect to factor 1 but incorrect with respect to factor 2.

The notching adjustment decreases in magnitude as unsecured debt increases in seniority. This is because the perceived risk of default decreases with higher credit ratings and so the need to notch to capture the potential difference in loss severity is reduced.

In the case of structural subordination, debt at the operating subsidiaries will get serviced by the cash flows and assets of the subsidiaries before funds can be passed to the holding company to service debt at that level.

104. Richard Grove invests in a 2-year, 4% semi-annual coupon paying bond with a par value of 1,000. The sequence of spot rates is as follows:

Time-to-maturity	Spot Rate
0.5 year	1.0%
1.0 year	1.8%
1.5 years	2.9%
2.0 years	4.2%
2.5 years	5.6%

The price of the bond is *closest* to:

A. $996.48.
B. $1,058.28.
C. $1,009.57.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 15, Reading 53, LOS c

Price of the bond =

$$\frac{20}{1.005}+\frac{20}{(1+0.009)^2}+\frac{20}{(1+0.0145)^3}+\frac{1{,}020}{(1+0.021)^4}=1{,}058.2800 \text{ or } 1{,}058.28$$

105. Which of the following is *least likely* an example of an internal credit enhancement?

A. Claim priorities to the underlying assets are ranked.
B. Posting more collateral than is required to secure financing.
C. Providing a credit line to reimburse cash flow shortfalls backing the issue.

Correct Answer: C

Reference:
CFA Level I, Volume 5, Study Session 15, Reading 51, LOS d

External credit enhancements include letter of credits whereby a financial institution provides the issuer with a credit line to reimburse any cash flow shortfalls from the assets backing the issue.

Internal credit enhancements include overcollateralization, posting more collateral than is needed to obtain or secure financing, as well as the ordering of claim priorities for ownership or interest in an asset.

106. The government of Ilaka, a developing country, has issued 30-year capital indexed bonds linked to the domestic consumer price index (CPI) in local currency IA. The bonds have a par value of IA 1,000. The bonds make semi-annual coupon payments at a rate of 6%. Over the most recent six months the CPI has increased by 4%.

If the bonds were interest-indexed bonds as opposed to capital-indexed bonds, semi-annual coupon would have been:

A. the same.
B. lower by $1.20.
C. higher by $2.40.

Correct Answer: A

Reference:
CFA Level I, Volume 5, Study Session 15, Reading 51, LOS e

As capital-indexed bonds, the annual coupon rate remains the same but the principal amount will increase to reflect inflation. Following the 4% increase in inflation, the new principal amount will be IA 1,040 (IA 1,000 × 1.04) and the semi-annual coupon payment is IA 31.20 (IA 1,040 × 0.03).

If the bonds are interest-indexed bonds, the principal amount will remain the same but coupon payments will be adjusted to reflect inflation. The new semi-annual coupon payment would thus be IA 31.20 (IA 1,000 × 1.04 × 0.03); i.e. the two coupon payments will be identical.

Questions 107 through 112 relate to Alternative Investments

107. Carlson Smith has invested in the FD hedge fund, which has $450 million under management. The fund charges a 2% management fee based on the funds under management at year end and a 20% incentive fee for any returns earned in excess of a 6% hurdle rate. The FD fund appreciated by 10% during the year. Smith's net-of-fees returns is *closest* to:

A. 7.44%.
B. 9.64%.
C. 9.76%.

Correct Answer: A

Reference:
CFA Level 1, Volume 6, Study Session 18, Reading 60, LOS f

(All $ calculations are in millions)
Fund value at year end = $450 × 1.10 = $495
Management fee = $495 × 0.02 = $9.90
Hurdle amount = $450 × 0.06 = $27
Incentive fee = ($495 – $450 – $9.90 – $27) × 0.20 = $1.62
Smith's net return = ($495 – $450 - $9.9 - $1.62)/$450 = 0.0744 or 7.44%.

108. Garcia Miguel is comparing the valuation three private equity companies for investment using the discounted cash flow approach. She has collected cash flow data for the three companies (Exhibit) and would like to invest in the one with highest valuation.

Exhibit:
Cash Flow Forecast Data Concerning Companies A, B and C

Company	Free Cash Flows to Equity*	Cost of equity
A	$40,000	5%
B	$155,000	12%
C	$88,100	6%

*All cash flow forecasts are perpetual

Miguel should *most likely* invest in Company:

A. A.
B. B.
C. C.

Correct Answer: C

Reference:
CFA Level 1, Volume 6, Study Session 18, Reading 60, LOS d

Based on the discounted cash flow approach, Company C has the highest valuation.

Company A = $40,000/0.05 = $800,000
Company B = $155,000/0.12 = $1,291,667
Company C = $88,100/0.06 = $1,468,333

109. A desirable characteristic of alternative investments is:

A. liquidity.
B. transparency.
C. low correlation with traditional investments.

Correct Answer: C

Reference:
CFA Level 1, Volume 6, Study Session 18, Reading 60, LOS c

A desirable characteristic of alternative investments is that they provide portfolio diversification. Low correlation with traditional investments results in a greater diversification effect. On the other hand, alternative investments are often illiquid and lack transparency both of which are undesirable attributes.

110. Which of the following is *most likely* to be considered an alternative investment for an investor whose major concern is liquidity?

A. ETFs only.
B. ETFs and REITs only.
C. ETFs, REITs and publicly traded private equity funds.

Correct Answer: C

Reference:
CFA Level 1, Volume 6, Study Session 18, Reading 60, LOS g

For the investors who seek liquidity, publicly traded securities such as shares of ETFs and REITs and publicly traded private equity firms may serve as the means for investing in alternative investments.

111. Which of the following relative value strategies in fixed income markets incorporates trades between two corporate issuers or between different parts of an issuer' yield curve?

A. Multi-strategy
B. Fixed income general
C. Fixed income convertible arbitrage

Correct Answer: B

Reference:
CFA Level 1, Volume 6, Study Session 18, Reading 60, LOS b

Fixed income general focus on relative value within the fixed income markets. These strategies may incorporate trades between two corporate issuers, between corporate and government issuers, between different parts of the same issuer's capital structure or between different parts of an issuer's yield curve.

112. A hedge fund with $120 million of initial investment and 2-20 fee structure earned 35% return at year end. Assuming management fees is based on assets under management at year end and incentive fee is calculated net of management fee, the total fees earned by the fund is *closest* to:

   A. $10.32 million
   B. $10.40 million
   C. $11.68 million

Correct Answer: A

Reference:
CFA Level 1, Volume 6, Study Session 18, Reading 60, LOS f

Management Fees = $120 million × 2% = $2.4 million
Incentive Fees = ($162 − $120 – $2.4)million × 20% = $7.92 million
Total Fees = $2.4 million + $7.92 million = $10.32 million

Questions 113 through 120 relate to Portfolio Management

113. If the market is informationally efficient market, the price in the market is

A. a biased estimate of all future discounted cash flows and active investment management is suitable.
B. an unbiased estimate of all future discounted cash flows and passive investment management is suitable.
A. an unbiased estimate of all future discounted cash flows and active investment management is suitable.

Correct Answer: B

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 41, LOS c

If the market is informationally efficient market, the price in the market is an unbiased estimate of all future discounted cash flows and passive investment management is suitable.

114. Feed back step assists in rebalancing the client's portfolio due to change in:

A. political system
B. market conditions.
C. circumstances of investment manager.

Correct Answer: C

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 41, LOS b

Feedback step assists the portfolio manager in rebalancing the portfolio due to change in market conditions or the circumstances of the client.

115. Which of the following is *most likely* to be an objective for a foundation?

A. Maintain the fund's nominal value
B. Reduce the volatility of spending needs
C. Generate liquidity to meet spending needs

Correct Answer: C

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 41, LOS b

Two objectives of foundations include:

- Maintaining the real capital value of the fund
- Generating income (liquidity) to fund the objectives of the institution

116. Sasha Gable is managing the portfolio of a pension fund, which is equally invested in equities and real estate. The correlation between the two securities is 0.10. Details concerning expected annual returns and standard deviations are summarized in the exhibit below:

Exhibit

	Expected Annual Return (%)	Expected Annual Standard Deviation (%)
Equities	15.5	5.7
Real estate	22.1	13.8

Holding all else constant, if Gable decides to increase the weight of equities to 60% by selling real estate, the portfolio standard deviation will, in percentage, terms:

A. increase by 3.38%.
B. decrease by 12.20%.
C. decrease by 14.44%.

Correct Answer: B

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 42, LOS e

$$\sigma_{port} = \sqrt{w_1{}^2\sigma_1{}^2 + w_2{}^2\sigma_2{}^2 + 2w_1w_2p_{1,2}\sigma_1\sigma_2}$$

The standard deviation of the current portfolio is 7.596%

$$\sigma_{port} = \sqrt{(0.5)^2(0.057)^2 + (0.5)^2(0.138)^2 + 2\times(0.5)(0.5)(0.10)(0.057)(0.138)}$$
$$= 0.07596$$

The standard deviation of the new portfolio is 6.6374%.

$$\sigma_{port,new} = \sqrt{(0.6)^2(0.057)^2 + (0.4)^2(0.138)^2 + 2\times(0.6)(0.4)(0.10)(0.057)(0.138)}$$
$$= 0.0678$$

The standard deviation of the portfolio will decrease by 12.20% [(0.0678/0.0772) – 1].

117. Stock returns are usually negatively skewed. This statement implies that:

   A. standard deviation will be overestimated.
   B. there is a higher than normal possibility for extreme returns.
   C. there is a high frequency of positive deviations from the mean.

Correct Answer: A

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 42, LOS c

Negative skewness implies that there is a higher frequency of negative deviations from the mean, which has the effect of overestimating standard deviation.

Kurtosis measures whether there is higher than normal probabilities for extreme returns.

118. At the beginning of the year 2010 an investor deposited $25,000 in his investment account. He generated an investment gain of $4,000 during the same year which resulted in an ending account balance of $29,000. In 2011, the investor withdrew $12,000 from his account at year end. At the beginning of the year 2012, the investor deposited a further $5,000. In 2013, no further transactions were made and the value of the investment account at the end of the year was $20,000.

The IRR of the investment account is *closest* to:

A. 3.44%.
B. 11.88%.
C. 20.11%.

Correct Answer: A

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 42, LOS a

The IRR is calculated by entering the following amounts into the financial calculator:

CF_0 = - 25,000
CF_1 = 12,000
CF_2 = - 5,000
CF_3 = 20,000
IRR = 3.44%

119. Which of the following statements is *least likely* correct regarding investment policy statement (IPS).

A. The IPS is a starting point of the portfolio management process.
B. The clients' objectives are specified in terms of risk tolerance and return requirements.
C. The unique circumstances section states any legal or regulatory restrictions that constraint the investment of the portfolio. .

Correct Answer: C

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 44, LOS b

Both options A and B are correct. Option C is incorrect. The five major IPS constraints are:

- Liquidity
- Time horizons
- Tax concerns
- Legal & regulatory factors
- Unique circumstance

120. The exhibit below illustrates expected annual risk and beta data concerning three textile manufacturers (A, B and C).

Exhibit

Textile Manufacturer	Expected Annual Standard Deviation (%)	Beta
A	25.5	1.8
B	31.8	0.6
C	19.4	1.2

Out of the three manufacturers, the highest total risk is equal to:

A. 0.065.
B. 0.101.
C. 0.318

Correct Answer: B

Reference:
CFA Level 1, Volume 4, Study Session 12, Reading 43, LOS c

Total risk is equal to total variance. The manufacturer with the highest total variance is B and this variance is equal to $0.101 = 0.318^2$