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CFA Level I 4th Mock Exam
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Revision 1

FinQuiz.com – 4th Mock Exam 2015 (PM Session)

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Questions 1 through 18 relate to Ethical and Professional Standards

1. Jackie Mills has just joined an equity management firm as a financial analyst. To complete her first assignment, Mills utilizes comprehensive data sorting software developed by an ex-employee of the firm. By the help of the software, Mills is able to establish a relationship between stock market returns and the GDP growth rate. Mills writes a report stating her conclusions without attributing the analyst who developed the software.

   With regards to writing the report, has Mills violated any CFA Institute Standards of Professional Conduct?

   A. No.
   B. Yes, specifically Standard I(C)-'Misrepresentation'.
   C. Yes, Standard I(C)-'Misrepresentation' and Standard III(A)-'Loyalty, Prudence and Care'.

   Correct Answer: A

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

   Mills has not violated any Standards. Models developed while employed by a firm are the property of the firm. The firm may issue future reports without providing attribution to the prior analysts.

2. Limelight Associates (LLA) is a well-established investment management firm in San Jose, California. The firm manages both discretionary and non-discretionary accounts as well as fee-paying and non-fee paying accounts. For buy recommendations, stock purchases are first made for discretionary accounts and then for non-discretionary accounts. The same holds for 'sell' recommendations.

   According to Standard III(B)-Fair Dealing, LLA's trade allocation procedures are *most likely*:

   A. ethical, as long as LLA discloses its trade allocation policies to its clients.
   B. ethical, as long as LLA discloses its trade allocation policies to its clients and prospects.
   C. unethical, even if LLA discloses its trade allocation policies to its clients and prospects.

Correct Answer: C

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

LLA's trade allocation policies are unfair so disclosure of the firm's policies would not change this fact and the policies would still be unethical.

3. Chris Harvey is planning to leave his current employer to work for a newly established investment advisory firm. Harvey plans to take with him the computer models he developed for stock selection, and has disclosed this fact to his employer. The employer permits Harvey to keep the models after employment ends.

If Harvey takes with him the computer models he developed, his actions would be in:

A. compliance with the Standards.
B. violation of Standard IV(A)-'Loyalty'.
C. violation of Standard IV-(A)'Loyalty' and Standard I-(D)-'Misconduct'.

Correct Answer: A

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

Harvey can take the models with him since his employer has given him permission to keep those models after employment ends.

4. While advising his client to move at least 10% of his portfolio from corporate bonds to bank-sponsored certificates of deposit, a portfolio manager makes the following comment:
"I guarantee that your principal value will not fall on these investments."

The portfolio manager has most likely:

A. not violated any Standards.
B. violated the Standards by misleading investors.
C. violated the Standards by misrepresenting information and guaranteeing preservation of investment capital.

Correct Answer: A

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

Certificates of deposit are insured by the government. Therefore, using the term ‘guaranteed’ in this context is not inappropriate as long as the amount is within government-insured limit.

5. Ryan English, a portfolio manager, offers only a few of his clients review meetings every month in addition to the regular annual review meetings. For the rest of his clients, Ryan has review meetings annually unless circumstances state otherwise.

Is English *most likely* in compliance with the CFA Institute Standards of Professional Conduct?

A. Yes.
B. No, because he does not treat his clients fairly.
C. No, because his meetings should be much more frequent.

Correct Answer: A

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

English is providing additional services to a few clients. The clients have probably paid higher fees to receive this service. As such, it does not appear that English has violated any Standards.

6. ‘Standard III(E)-‘Preservation of Confidentiality’ states that if applicable law requires members or candidates to maintain confidentiality, even if the information concerns illegal activities on the part of the client, members and candidates should not disclose such information.’

The above statement is *most likely*:

A. Correct.
B. Incorrect, since the more strict law applies and members are obligated to disclose illegal activities on part of clients.
C. Incorrect, since members should consult their compliance department and disclose the information only if the compliance personnel say so.

Correct Answer: A

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

Members and candidates must comply with applicable law. If applicable law requires members and candidates to maintain confidentiality, even if the information concerns illegal activities on the part of the client, members and candidates should not disclose such information.

7. With regards to proprietary trading procedures, the CFA Institute Standards of Professional Conduct impose a trading prohibition that is:

A. more strict for market-making than risk-arbitrage trading.
B. more strict for risk-arbitrage trading than for market making.
C. equally stringent for market-making and risk-arbitrage trading.

Correct Answer: B

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

The potential for illegal profits is greater in risk-arbitrage trading than in market making. Hence, trading prohibitions are more stringent for risk-arbitrage trading.

8. If a designated officer discovers that violation of the Code and Standards occurred by a member or candidate:

   A. the designated officer can propose a disciplinary sanction that must be accepted by the member or candidate.
   B. the designated officer can propose a disciplinary sanction that may be accepted or rejected by the member or candidate.
   C. the matter must be referred to the hearing panel composed of disciplinary review committee (DRC) members and CFA Institute member volunteers.

Correct Answer: B

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

If a designated officer discovers that violation of the Code and Standards occurred by a member or candidate, the designated officer proposes a disciplinary sanction, which may be accepted or rejected by the member or candidate.
If the member or candidate does not accept the proposed sanction, the matter is referred to a hearing panel composed of DRC members and CFA Institute member volunteers affiliated with the DRC.

9. If a member or candidate has reason to believe that a colleague is engaging in illegal activities, the *best* course of action as stipulated by the CFA Institute Standards of Professional Conduct will be to:

   A. leave the firm after disclosing to legal authorities about the illegal activity.
   B. report the activity to legal authorities and discontinue any association with the colleague.
   C. inform the firm's compliance department or appropriate legal counsel to determine whether applicable laws require reporting the illegal activity.

Correct Answer: C

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

The member or candidate should first inform the firm's compliance department or legal counsel to determine whether applicable laws require reporting the illegal activity. Only in extreme cases, where the compliance personnel fail to take action to resolve the issue, should the member report it to legal authorities or leave the firm.

10. Ella Asset Managers (ELLAM) has just launched the 'High-Yield Market Fund' a fund that targets high dividend paying domestic and international stocks. To promote the fund and boost visibility amongst investors, ELLAM offers three of its most prominent clients to commit at least $10,000 in the fund in exchange for lower advisory fees. ELLAM previously determines that the fund is suitable for each of the three clients.

    Has ELLAM *most likely* violated Standard II-'Integrity of Capital Markets' of the CFA Institute Standards of Professional Conduct?

    A. No, as long as it fully discloses its agreement with the clients to boost visibility.
    B. Yes, since ELLAM is engaging in an illegal act and should be held accountable for it.
    C. Yes, since ELLAM is intentionally misleading investors and is thus compromising the integrity of capital markets.

    Correct Answer: A

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

    As long as ELLAM fully discloses its agreement with clients to boost visibility, the firm will not be in violation of the Standards.

11. While preparing advertising material at a new firm, an analyst utilizes his past investment record at a prior firm; to be in accordance he should *most likely* disclose:

    A. where the performance took place.
    B. where the performance took place and his specific role in achieving that performance.
    C. the source of the historical performance, along with details of the prior firm and the funds managed.

Correct Answer: B

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

The Standards do not prohibit showing past performance of funds managed at a prior firm as part of a performance track record as long as that record is accompanied by appropriate disclosures about where the performance took place and the person's specific role in achieving that performance.

12. Vivid Optics (VIOP) is a U.S. firm that specializes in the productions of eye-sight glasses and eye-care equipment. Even though the firm has been successful in the past, it's stock has not gained much popularity amongst investors. To increase visibility in financial markets, VIOP hires Al Bailey, a research analyst, to write a report analyzing their company. In return, VIOP promises to pay Bailey a fee that is 10% greater than the fee paid for similar research work. Bailey conducts a thorough, independent analysis and issues a 'buy' recommendation for the firm.

    In preparing the report, to be in compliance with Standard I(B)-'Independence and Objectivity' of the CFA Institute Standards of Professional Conduct, Bailey should most likely:

    A. refuse writing the report and accepting a higher fee since it contradicts with best conduct.
    B. write the report, but disclose the nature of compensation and potential conflicts of interests to investors.
    C. write the report, but not accept the higher fee and ask for a fee that is comparable to similar research work.

Correct Answer: B

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

The firm promises to pay a flat fee (which is greater than offered in the market), and not a fee based on the conclusions of the report. Hence, as long as Bailey fully discloses the nature of his compensation and all potential conflicts of interest to investors, he is in accordance with the Standards.

13. Zenith Futures Exchange has launched a new futures contract and is trying to promote it amongst traders and arbitrageurs. In order to boost liquidity of the contract, the exchange enters into agreements with members to commit to a substantial trading volume on the contract. While marketing the contract to investors, the exchange fully discloses the liquidity enhancing strategy it used.

    With respect to Standard II-B ‘Market Manipulation’ of the CFA Institute Standards of Professional Conduct, Zenith Futures Exchange is *most likely* in:

    A. compliance.
    B. violation, because engaging in a pump-priming strategy is illegal.
    C. violation, because disclosure does not absolve the exchange from its unethical intent.

Correct Answer: A

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

The exchange can engage in a liquidity-pumping strategy, but the strategy must be disclosed.

14. One-Stop Products (OSP) is a large toy manufacturer with a number of retail shops throughout USA. OSP has hired Cathy John as a portfolio manager for part of its newly offered pension plan. The OSP pension fund is also partly invested in an equity mutual fund.

    Which of the following fund managers are bound by the duty of loyalty to OSP?

    A. Cathy John only.
    B. Both Cathy John and the mutual fund manager.
    C. Neither Cathy John nor the mutual fund manager.

Correct Answer: A

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

Cathy John provides advisory services to OSP so it is bound by the duty of loyalty to OSP. The mutual fund manager, however, is not. He or she is obligated to manage the fund in accordance with the fund's objectives, and is not liable to determine the suitability of the fund for each investing client.

15. Laura Culpitt is the compliance officer at her investment firm. Culpitt just found out that a portfolio manager at the firm was engaging in inequitable trading practices, giving preference to his personal portfolio over client accounts. Immediately after identifying the malpractice, Culpitt talks to the manager who assures her that the wrongdoing would not recur.

    To fulfill her duty as a supervisor, according to *best* practice, Culpitt:

    A. has performed her duty as a supervisor.
    B. should report the misconduct up the chain of command and warn the employee to cease the unfair practice.
    C. should place limits on the employee's activities and/or increase monitoring of the employee's activities.

Correct Answer: C

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

The supervisor should take steps to ensure that the violation will not be repeated. Placing limits on the employee's activities or increasing the monitoring of the employee's activities would represent such steps.

16. An investment firm is taking steps to comply with the GIPS standards to be at par with global competition. The firm, however, operates in a country that has existing laws and industry standards that impose requirements related to the calculation and presentation of investment performance.

    The firm should *most likely* comply with:

    A. GIPS Standards only.
    B. local laws and standards only.
    C. GIPS Standards in addition to applicable regulatory requirements.

Correct Answer: C

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

Where existing laws and industry standards already impose requirements related to the calculations and presentation of investment performance, firms are strongly encourages to comply with the GIPS standards in addition to applicable regulatory requirements.

17. Kelly Jesper is the portfolio manager for a large endowment fund. Since the fund is invested in international stocks and bonds, Jesper plans to hire a currency manager as a sub-advisor. To select the appropriate sub-advisor, Jesper went through the fee structure of a number of eligible firms and selected the firm with the lowest fees for the job.

    Jesper's selection process has *most likely*:

    A. violated the Standards.
    B. not violated the Standards because Jesper is in a position to deem what is the appropriate eligibility criteria.
    C. not violated the Standards because Jesper's selection will have the least impact on the firm's cost structure.

Correct Answer: A

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

When selecting a subadviser, Jesper needs to ensure that the new manager's services are appropriate for her clients. In basing the decision on the fee structure alone, Jesper has violated Standard III(C)-'Suitability'.

18. Walter & Associates (W&A) is a GIPS compliant firm that makes compliant presentations to all prospective clients. On January 1, 2012, the firm provided a compliant presentation to all prospects. Six months later, it provided another compliant presentation to only few selected clients.

W&A's actions have *most likely*:

A. ensured compliance with the GIPS standards.
B. not met the requirements of the GIPS standards.
C. violated the standards as a consequence of being selective in their disclosure policy.

Correct Answer: A

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

As long as a prospective client has received a compliant presentation within the previous 12 months, the firm has met the requirement set forth by the GIPS standards.

Questions 19 through 32 relate to Quantitative Methods

19. Betty Williams is constructing an appropriate asset allocation for a client with a $500,000 portfolio. The client has stipulated the need to withdraw $50,000 from the portfolio in six months' time to meet medical expenses. The overall time horizon for the portfolio is more than 20 years. The client does not want her capital to depreciate in any way. The table below shows the allocations that Williams is considering. The risk-free rate is 7.5%.

Allocation	A	B	C
Expected annual return	27	17	14
Standard deviation	30	19	8

The allocation that would be *most* appropriate for William's client is:

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

Correct Answer: A

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

The allocation that has the highest SFR would be most appropriate (since the client wants to meet a cash flow need). The threshold return equals 50,000/500,000 = 0.10

A: 27-10/30 =0.567
B: 17-10/19 = 0.3684
C: 14-10/8 = 0.500

Hence, allocation A is most appropriate.

20. John Hedges has invested a part of his portfolio in a well-diversified mutual fund consisting of U.S. stocks only. Even though the fund's return was 3.5% for the most recent month, the mean monthly return equaled 1.5% with a standard deviation of 4.5% for a total of 260 observations. Hedges is utilizing this information to understand the investment's risk characteristics.

Using the Chebyshev's inequality, the return interval in which at least 195 observations will lie is *closest* to:

A. -3.0% to 6.0%.
B. -7.5% to 10.5%.
C. -12.0% to 15.0%.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 7

With a total of 260 observations, 195 observations equal 75% of the total. 75% of the observations lie within two standard deviations of the mean. The interval in which 75% of the observations lie will equal:
1.5-2(4.5) to 1.5+2(4.5)
-7.5% to 10.5%

21. Which of the following sampling biases would *most likely* result in an underestimated standard deviation of returns?

A. Look-ahead bias.
B. Data mining bias.
C. Survivorship bias.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 10

Since only the best performing funds are included in survivorship bias (the poorly performing ones are dropped out), returns will be overstated and risk would be understated.

22. Flags and pennants are *least likely* considered to be:

A. minor continuation patterns.
B. similar to each other and have same uses.
C. bullish indicators and are formed in an uptrend.

Correct Answer: C

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

Both options A and B correctly represent the characteristics of flags and pennants. They are considered minor continuation patterns because they are formed over short periods of time i.e. on a daily price chart, typically over a week. They are similar to each other and have same uses. However option C do not represent the properties of flags and pennants.

23. Red-Dot Enterprises (RDE) is choosing between the two projects that have cash flows displayed in the following exhibit.

Project	CFO($)	CF1($)	CF2($)	CF3($)
A	-50,000	65,000	0	0
B	-50,000	0	0	78,000

The IRR of Project A is 45% whereas the IRR of Project B is 23%. However, using the NPV criterion, Project B ranks higher than Project A using a discount rate.

Compared to crossover rate, the discount rate used for NPV analysis is:

A. lower.
B. equal.
C. higher.

Correct Answer: A

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 6

Since the NPV of the project with the higher more distant cash inflow is larger than the NPV of the other project, the discount rate used is likely to be low. At lower rates, the NPV of Project B is likely to be higher than Project A.

24. Irene Elinor, a research analyst, is using the safety-first ratio to assess several asset allocations for her personal portfolio. Given her threshold return of 6%, Elinor has selected a portfolio with an expected annual return of 15% and standard deviation of 19%. Elinor assumed a normal distribution of returns for her portfolio. She used the following table to assist her selection process.

x or z	0.05	0.06	0.07
0.3	0.6368	0.6406	0.6443
0.4	0.6736	0.6772	0.6808
0.5	0.7088	0.7123	0.7157

The probability that Elinor's selected portfolio will return less than the shortfall level is *closest* to:

A. 31.92%.
B. 47.37%.
C. 68.08%.

Correct Answer: A

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

SFR: 15-6/19= 0.4737
Using the standard normal cdf, N(0.47) = 0.6808, 1-0.6808 = 0.3192 or 31.92%

25. An analyst is interested in three independent events R,V and T with probabilities of 0.21, 0.34 and 0.45 respectively. The probability that all three will occur is *closest* to:

A. 0.03.
B. 0.32.
C. 1.00.

Correct Answer: A

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

When three events are independent, the joint probability of three events equals the product of the individual probabilities i.e.
P(RVT) = P(R) x P(V) x P(T) = 0.21 x 0.34 x 0.45 = 0.0321

26. A T-bill has a face value of $1 million and 180 days until maturity. The security is selling for $970,000. The yield on a bank discount basis is *closest* to:

    A. 1.94%.
    B. 6.00%.
    C. 6.18%.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 6

r = 30,000/1,000,000 (360/180) = 6.0%

27. Which of the following statements is *least accurate* regarding measures of central tendency and measures of location?

    A. Measures of location include not only measures of central tendency but also illustrate the distribution of the data.
    B. Measures of location illustrate the distribution and location of the data but fail to specify where the data are centered.
    C. Measures of central tendency specify where the data are centered but illustrate nothing about the distribution of the data.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 7

- Measures of central tendency specify where the data are centered.
- Measures of location include not only measures of central tendency but also illustrate the distribution and location of the data.

28. If a return distribution has small but frequent gains and only a few extreme losses, which of the following measures for the distribution will *most likely* be the highest?

    A. Mean.
    B. Mode.
    C. Median

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 7

The question describes a negatively skewed distribution. For such a distribution, the mode is the highest.

29. "Continuously compounded returns need to be normally distributed for asset prices to be log-normally distributed."

    Which of the following would *most likely* refute the above condition?

    A. Law of probabilities.
    B. Central limit theorem.
    C. Lognormal distribution theorem.

Correct Answer: B

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

The central limit theorem states that continuously compounded returns need not be normally distributed for asset prices to be reasonably well described by a lognormal distribution.

30. Harold Burst, a portfolio manager, is evaluating international investments for diversification purposes. Burst has compiled 15-years data regarding the returns to a broad-based Russian equity index. To analyze the data gathered, Burst proceeds with estimating the data's mean. Even though he knows that the mean may carry important information, he realizes that it may be skewed upward or downward by extremely large or small observations. Burst is not sure how to rectify this problem.

    Which of the following, if used, will *least likely* address Burst's concern?

    A. Trimmed mean.
    B. Winsorized mean.
    C. Standardized mean.

Correct Answer: C

Reference:
CFA Level I, Volume 1, Study Session 2, Reading 7

Both the trimmed mean and the Winsorized mean are approaches to handle extreme values. Standardized mean does not address Burst's concern.

31. Eric Bates is performing a trend analysis of the market prices of U.S. commodity stocks. Bates is a strong proponent of the normal distribution, and believes that most data can be described by it. He is thus using the distribution to help him with his analysis.

    Bates approach to perform the trend analysis is *most likely*:

    A. appropriate.
    B. inappropriate, because the lognormal distribution is more suitable.
    C. inappropriate, because a distribution skewed to the left is more suitable.

Correct Answer: B

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

Asset prices can never be negative, so a lognormal distribution, that is bound by zero on the left, will be more suitable.

32. Student's t-distribution is *most likely* used when the population variance is:

A. known for small and large sample sizes.
B. not known for small and large sample sizes.
C. known for large sample sizes but not known for small sample sizes.

Correct Answer: B

Reference:
CFA Level I, Volume 1, Study Session 3, Reading 10

Student's t-distribution is used when the population variance is not known for both small and large sample sizes.

Questions 33 through 44 relate to Economics

33. A dealer provides the following quotes:

	Spot Rate	Expected Spot Rate in one year
USD/EUR	1.3455	1.3987

Based on the data, over the next year against the U.S. dollar, the euro is expected to:

A. appreciate by 1.04%.
B. depreciate by 3.80%.
C. appreciate by 3.95%.

Correct Answer: C

Reference:
CFA Level I, Volume 2, Study Session 6, Reading 21

Euro is the base currency in the above quote provided by the dealer (USD/EUR) and an increase in the expected spot rate indicates that euro is appreciating. Mathematically:

$$\frac{USD}{EUR} = \frac{1.3987}{1.3455} - 1 = 3.95\%$$

34. The breakeven sales quantity that would allow an investor to earn a return commensurate with the risk of the firm's equity capital is the quantity:

A. corresponding to the point of intersection of the marginal cost curve and the ATC curve.
B. that is a little greater than the quantity corresponding to the starting point of the firm's long-run supply curve.
C. that equals the sum of the normal profit and the quantity corresponding to the point of intersection of the MC and ATC curve.

Correct Answer: A

Reference:
CFA Level I, Volume 2, Study Session 4, Reading 15

The quantity corresponding to the point of intersection of the MC and ATC curve includes the normal profit (profit required by investors on their equity capital regardless of the level of output).

35. Which of the following factors will *least likely* cause a shift in an economy's aggregate demand?

A. A change in price.
B. A change in household wealth.
C. A change in business expectations.

Correct Answer: A

Reference:
CFA Level I, Volume 2, Study Session 5, Reading 17

A change in price will cause movement *along* the demand curve.

36. Assuming perfect competition, if price increases, a firm's demand curve will *most likely* shift:

A. upward, and the total revenue curve would shift leftward from the origin.
B. leftward, and the total revenue curve would shift leftward from the origin.
C. downward, and the total revenue curve would shift rightward from the origin.

Correct Answer: A

Reference:
CFA Level I, Volume 2, Study Session 4, Reading 15

Demand will increase, so the demand curve will shift upward (parallel to the previous curve) and the TR curve will move leftward.

37. Rocket Communications (ROCOM) is a newly established firm in the U.S. electronics and communications industry. At the current price level for its product, the firm makes only normal profit. The CEO of ROCOM believes that by realizing economies of scale the firm can generate economic profit by moving towards the minimum cost point in the long-run.

Assuming that the U.S. communications and electronics industry is characterized by perfect competition, in the short-run the firm can:

A. not generate economic profit and neither can it in the long-run.
B. generate economic profit if price is greater than average total cost, but in the long-run no economic profit is possible since price equals average total cost.
C. not generate economic profit because price equals average total cost, but in the long-run the firm can generate economic profit in the amount of 'price less average total cost' by moving to the lowest cost point.

Correct Answer: B

Reference:
CFA Level I, Volume 2, Study Session 4, Reading 15

In the short-run, by moving towards the lowest cost point, the firm can generate economic profit. However, economic profit with no barriers to entry under perfect competition leads to more competitors, a greater market supply, and, subsequently, a lower price in the long-run. As price declines to the long-run equilibrium level, economic profits disappear (it is zero under perfect competition).

38. Profit maximization for a firm *most likely* occurs when:

A. TR equals TC.
B. MR equals MC.
C. TR is greater than TC.

Correct Answer: B

Reference:
CFA Level I, Volume 2, Study Session 5, Reading 15

Profit maximization occurs when marginal revenue equals marginal cost and when the difference between TR and TC is the greatest.

39. If an economy has experienced a decline in its aggregate supply, which of the following investments would be *most* appropriate for an investor?

    A. Equity.
    B. Fixed-income.
    C. Commodities.

Correct Answer: C

Reference:
CFA Level I, Volume 2, Study Session 5, Reading 17

If AS declines, interest rates rise and output declines, so fixed income and equity investments would not be attractive. Commodity based investments are appropriate because their profits and prices are likely to rise.

40. A company operating in an industry defined by imperfect competition increases the quantity of its product sold by 50,000 units. The company still operates at only 30% of full capacity.

    Which of the following *best* describes the changes in the company's revenues?

    A. Total revenue will increase, marginal revenue will increase but average revenue will decrease.
    B. Total revenue will increase, marginal revenue will decrease but average revenue will increase.
    C. The rate of increase in total revenue will decrease, and marginal revenue and average revenue both will decrease.

Correct Answer: C

Reference:
CFA Level I, Volume 2, Study Session 4, Reading 15

The rate of increase in total revenue decreases as quantity increases. Average revenue and marginal revenue decrease when output increases.

41. Cross elasticity of demand is negative for goods that are:

A. substitutes.
B. complements.
C. normal goods.

Correct Answer: B

Reference:
CFA Level I, Volume 2, Study Session 4, Reading 13

Cross elasticity of demand is positive for goods that are substitutes and is negative for goods that are compliments.

42. A firm's long-run supply curve equals the firm's marginal:

A. cost curve that lies above the minimum point on the average total cost curve.
B. cost curve that lies above the minimum point on the average variable cost curve.
C. revenue curve that lies above the minimum point on the average total cost curve.

Correct Answer: A

Reference:
CFA Level I, Volume 2, Study Session 5, Reading 15

In the long run, the firm needs to cover both fixed and variable costs. Hence, the long-run supply curve lies above the minimum point on the average *total* cost curve.

43. Isabel Riley has just started her own business of providing career counseling to young and aspiring students of finance and accounting. Riley provides this service in her own home so that she doesn't have to pay any rent or additional utility bills. No other apparent fixed costs apply. The opportunity cost of providing services in terms of forgone hours at her current job varies with the amount of students Riley gets per week.

Given the above information, if TR is greater than TVC, Riley should *most likely*:

A. continue running the business as it is profitable.
B. shut down in the short run and exit market in the long run.
C. continue running the business in the short run but only continue in the long-run if TR is greater than TC.

Correct Answer: A

Reference:
CFA Level I, Volume 2, Study Session 5, Reading 15

Since fixed costs are negligible, the only costs that Riley faces are variable (i.e. the opportunity cost). Hence, if total revenue is greater than total variable costs, the business is profitable, both in the long-run and the short-run, and Riley should continue running the business.

44. If the expansion of an economy is largely supply driven, which of the following *best* represents the level of interest rates and inflation in the economy?

A. Low inflation and low interest rates.
B. Low inflation but high interest rates.
C. High inflation and high interest rates.

Correct Answer: A

Reference:
CFA Level I, Volume 2, Study Session 5, Reading 17

Supply driven expansions are associated with lower inflation and low interest rates.

Questions 45 through 68 relate to Financial Reporting and Analysis

45. An analyst has been assigned the task of analyzing the following comparative data.

	Firm A	Firm B	Firm C	Industry Average
Inventory turnover	7.0	6.5	7.5	7.0
Growth rate	6.0%	12.0%	8.5%	9.0%
Inventory write-downs	$30,000	$7,000	$2,000	-

Which of the above firms *most likely* has the most effective inventory management system in place?

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

Correct Answer: B

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 29

A high inventory turnover with slower growth could indicate inadequate inventory levels. Firm B has a closer to average inventory turnover ratio but a much higher growth rate. Hence, the turnover probably reflects greater efficiency in managing inventory.

46. Matt Lyman is a research analyst reviewing the financial performance of Fresh Beverages (FREBE), a medium-sized firm famous for its pulpy juices. Lyman has accumulated the following data about FREBE for the fiscal year ended 31 May, 2010:

- Income from continuing operations is $14.5 million.
- Depreciation equals $6 million and amortization is $3 million.
- The increase in accounts receivable from last year is $2.5 million.
- During the year inventories did not change whereas accounts payable increased by $3.0 million.
- Over the last year, accrued liabilities have decreased by $4.5 million.

Given the information above, FREBE's cash flow from operations for the year ended 31 May, 2010 is *closest* to:

A. $19.5 million.
B. $27.5 million.
C. $28.5 million.

Correct Answer: A

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

CFO = $14.5+6+3-2.5+3.0-4.5 = $19.5 million.

47. Olson White is an equity analyst keenly following the pharmaceutical industry. White suspects that Medi-Care Pharmaceutical's financial position has deteriorated over the last few years. The firm's quick ratio decreased from 6.7 to 4.3 in the current year. Current liabilities and daily cash expenditures in the current year equaled $107,000 and $40,000 respectively. White is concerned about the firm's liquidity position.

Medi-Care Pharmaceuticals' defensive interval ratio for the current year is *closest* to:

A. 6.42.
B. 11.50.
C. 17.92.

Correct Answer: B

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

4.3 = Cash + Short-term Marketable Investments + Receivables/107,000
Therefore, Cash + ST investment+ Receivables = $460,100
Hence, defensive interval ratio: 460,100/40,000 = 11.50

48. Sturdy Auto Parts Manufacturer is testing a prototype electronic auto part that would help improve the navigation systems in cars. The part is feasible to produce and would keep the firm competitive with technological advance in the market. The following exhibit displays information about the expenses of the research division with regards to the project.

Exhibit:
Expenses related to Auto Part Project (‘000 of US$)

Material and services	950
Direct Labor	550
Start-up costs	400
Administrative personnel	250
Direct overhead	375
Indirect overhead	100

Under IFRS, the amount of costs of the project that would be capitalized will be *closest* to:

A. $1,975,000.
B. $2,225,000.
C. $2,625,000.

Correct Answer: A

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

950+550+375+100 = $1,975,000
Start-up costs and admin costs are expensed.

49. Holding everything else constant, if a firm switches from the LIFO method of accounting to FIFO, in a period of rising prices, the firm's current ratio will *most likely*:

A. increase.
B. decrease.
C. remain unchanged.

Correct Answer: A

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

If a firm switches from LIFO to FIFO, in a period of rising prices, inventory will increase (inventory will have more expensive recently purchased items). Hence, the current ratio (CA/CL) will rise.

50. The chief executive officer of a manufacturing concern just had a meeting with the firm's financial department. After the meeting, the members of the financial committee decided to increase the estimated useful life of a piece of equipment from 5 years to 7 years. In addition, given future market conditions, the committee also revised the salvage value estimate downward by 20%.

Holding everything else constant, with regards to the changes made only, net income in the future will *most* likely:

A. increase.
B. decrease.
C. may increase or decrease.

Correct Answer: C

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

An increase in the estimated useful life will decrease depreciation expense. However, a decrease in the salvage value will increase depreciation expense. Hence, net income may rise or fall (depreciation expense is subtracted from net income).

51. If the value of the net identifiable assets of a target company is greater than the cost to purchase that company, the excess will *most likely*:

    A. not be depreciated but checked annually for impairment.
    B. be expensed immediately in the profit and loss statement.
    C. be amortized and reported in the profit and loss statement over a specified time period.

Correct Answer: B

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

This defines a bargain purchase; the gain will be expensed immediately in the profit and loss statement (in the period in which it arises).

52. Under U.S. GAAP companies are:

    A. required to expense costs associated with internally created intangible assets.
    B. required to capitalize costs associated with internally created intangible assets.
    C. allowed to capitalize or expense costs associated with internally created intangible assets.

Correct Answer: A

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

Under U.S. GAAP companies are not allowed to capitalize costs associated with internally created intangible assets. All such costs must be expensed in the income statement.

53. Which of the following will *most likely* increase net income relative to operating cash flow?

A. Depreciation.
B. Gain on sale of an asset.
C. Amortization of a bond premium.

Correct Answer: B

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

Gain on sale increases net income but has no effect on cash flow. Depreciation would decrease net income and increase CFO. Amortization of a bond premium is added back to CFO, hence it increases cash flow.

54. Pinnacle Products Incorporated (PIPR) wrote down the value of its inventory in 2010 and reversed the write-down in 2011.

Under IFRS, compared to the ratios that would have been calculated if no write-down had occurred, which of the following PIPR's reported 2011 values would be the same?

A. Current ratio.
B. Operating profit margin.
C. Cash/Cost of sales ratio.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 29

Since the write-down was reversed, there would be no affect on current assets (the effect will cancel out). Hence, the current ratio will be the same.

55. A company just purchased machinery worth $55,000 in order to reduce labor costs and increase efficiency. The machinery has a useful life of 5 years and a salvage value of zero. The company plans to depreciate the machinery's value using the accelerated depreciation method.

Holding everything else constant, if the company had used the straight-line depreciation method, the firm's net income would have been:

A. lower in the early years.
B. higher in the early years.
C. either higher or lower in the early years.

Correct Answer: B

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

If the firm had used the straight-line method, depreciation expense would be lower in early years. This means that net income would be higher.

56. A firm invested $10 million in a 7% semiannual pay coupon bond a year ago. Since then, interest rates have declined such that the value of the investment has increased by $1.5 million.

Ignoring all other effects, at the end of year 1, the lowest value for reported assets would be if the bond is reported as a:

A. held-for-trading asset.
B. held-to-maturity asset.
C. available-for-sale asset.

Correct Answer: B

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

If a security is reported as held-to-maturity, the increase in the value of the investment will not be reported until the security is sold. Hence, reported assets would be lower in such a case.

57. White Rock Enterprises (WREN) reported income tax expense of $6.5 million over the past year. During the same year, taxes payable and deferred tax assets increased by $2 million and $0.85 million respectively. WREN reports no deferred tax liabilities.

Over the recent year, the cash paid by WREN for income taxes is *closest* to:

A. $4.5 million.
B. $5.35 million.
C. $7.65 million.

Correct Answer: B

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

Cash paid for income taxes: 6.5+0.85-2 = $5.35 million.

58. Chucky Cheese (CHCH) is a restaurant chain in Ohio that prepares its financial statements in accordance with U.S. GAAP. Just recently, the firm borrowed $2,000,000 to construct a facility with a useful life of 35-years. The loan has an interest rate of 15% payable annually and has a maturity of 3 years. CHCH invested the loan proceeds to earn $50,000 during the three year loan period.

If CHCH had prepared its financial statement in accordance with IFRS, the firm's:

A. future depreciation expense would be lower.
B. cash flow from operating activities would be higher.
C. property, plant and equipment would be $50,000 higher.

Correct Answer: A

Reference:
CFA Level I, Volume 3, Study Session 8, Reading 29

Under IFRS, the capitalized amount can be lowered by the amount of interest earned on temporarily investing the borrowed monies. Hence, PP&E would be lower (cap. amount would be lower) under IFRS. Consequently, depreciation expense would also be lower, so option B is correct.

59. If the days of sales outstanding of a firm decreases and the proceeds from the collections are used to purchase inventory, which of the following ratios will decline?

A. Quick ratio.
B. Current ratio.
C. Receivables turnover.

Correct Answer: A

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

The current ratio will remain unchanged, but the quick ratio will decline.

60. An equipment costs $17,000 with a useful life of five years and estimated residual value of $2,000. The equipment is to be depreciated using the double declining balance method.

The net book value of the equipment at the beginning of the third year would be *closest* to:

A. $3,672.
B. $6,120.
C. $8,704.

Correct Answer: B

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

Under the straight-line method: 17,000-2,000/5 = $3,000 or 20%
Under the double declining balance method: 2 (20%) = 40%
End of year 1: NBV: 17,000 – 40%(17,000) = $10,200
End of year 2: NBV: 17,000 – (4,080+6,800) = $6,120---(10,200*40% = 4,080)
Hence, at the beg of the third year, NBV = $6,120.

61. Silver Rock Cafe (SRC) is a famous coffee shop and dessert specialist operating in New York, USA. Just recently, SRC reported a gain on the sale of cooking equipment of $10 million, depreciation expense of $6.5 million and capital expenditures of $18 million. The exhibit displays additional information about the firm's balance sheet accounts.

	December 31 2010	**December 31 2011**
Equipment	$80 million	$91 million
Accumulated depreciation –equipment	$25 million	$30 million

Using the information above, the cash that SRC received from the sale of the cooking equipment is *closest* to:

A. $12.0 million.
B. $15.5 million.
C. $17.0 million.

Correct Answer: B

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

Historical cost of equipment sold: 80+18-91 = $7 million
Accumulated dep. on equipment sold: 25+6.5-30 = $1.5 million
Hence, book value: 7-1.5 = $5.5 million.
Because gain on sale is $10 million cash received must be $15.5 million.

62. Which of the following *least* accurately describes the effects on a firm's return on assets for an increase in market value of fixed income security?

If the investment is classified as:

A. held-for-trading, return on assets would be higher than if it classified as available for sale.
B. available for sale, return on assets will be higher than if it is classified as held to maturity.
C. held for trading, return on assets would be higher than if it is classified as held to maturity.

Correct Answer: B

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

The effects on a firm's return on assets for an increase in market value of fixed income security will be:

- higher if the security is classified as held for trading than if it is classified as held to maturity.
- higher if the security is classified as held to maturity than if it is classified as available for sale.

63. Which of the following assets should *least likely* be amortized?

A. A tangible asset with an indefinite life.
B. An intangible asset with an indefinite life.
C. An unidentifiable asset with a definite life.

Correct Answer: B

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

An intangible asset with an indefinite life is not amortized. Instead, it is test for impairment at least annually.

64. Brick Enterprises reported cost of goods sold of $85,000 and net income of $35,000 in the most recent year. During that year, inventory increased by $12,000 and accounts payable decreased by $10,000.

Over the recent year, cash paid to suppliers was *closest* to:

A. $83,000.
B. $87,000.
C. $107,000.

Correct Answer: A

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

Cash paid to suppliers: 85,000+12,000+10,000 = $107,000

65. An analyst is evaluating the liquidity of three large utility firms and has gathered the following comparative data to assist him with his analysis.

	Firm A	Firm B	Firm C
Days of inventory on hand	8	10	25
Days of sales outstanding	55	65	77
Payables turnover	9	3	5

*All figures are annual using a 365-day year.

With respect to the cash conversion cycle, which of the following firms has the greatest liquidity?

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

Correct Answer: B

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

Number of days of payables:
Firm A: 365/9 = 40.55
Firm B: 365/3 =121.67
Firm C: 365/5 = 73

Cash conversion cycle:
Firm A: 8+55-40.55 = 54
Firm B: 10+65-121.67 = -46.67
Firm C: 25+77 – 73 = 29
With its negative cash conversion cycle, Firm B is most liquid.

66. An equity analyst, is estimating the EPS of a firm. The firm has an average of 700,000 shares of common stock outstanding and 30,000 shares of convertible preferred. Each preferred share is convertible into two shares of the company's common stock. Just recently, it has increased preferred dividends from $15/share to $35/share.

If net income equals $1,600,000, the values of firm's diluted EPS before and after the increase in dividends, are *closest* to:

A. $1.64 and $0.78 respectively.
B. $2.10 and $2.10 respectively.
C. $1.33 and $1.27 respectively.

Correct Answer: A

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

Before increase: 1,600,000/(700,000+60,000) = $2.105 which is greater than the basic EPS of $1.64 (Basic EPS = $\frac{1{,}600{,}000-450{,}000}{700{,}000}$) so reported diluted EPS will be #1.64.
Similarly for after increase: Basic EPS : $0.785 $= \frac{1{,}600{,}000-1{,}050{,}000}{700{,}000}$.

67. Considering each in isolation, a decrease in which of the following would *least likely* result in a higher return on equity?

A. Tax burden.
B. Average total assets.
C. EBIT relative to EBT.

Correct Answer: A

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

An *increase* in the tax burden ratio (implying lower taxes) will result in an increase in ROE.

68. A portfolio manager is analyzing the information provided in the exhibit below.

Exhibit:
Key Financial Information (in thousands of US dollars)

	Year ended June 1, 2011
Bank loan	150
Long-term bank debt	750
Other financial liabilities	200
Trade payables	650
Deferred tax assets	475
Total equity	9,500

Using the above information, the debt to equity ratio is *closest* to:

A. 11.58%.
B. 16.58%.
C. 21.95%.

Correct Answer: A

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

Debt/Equity: 150+750+200/9,500 = 11.58%

Questions 69 through 76 relate to Corporate Finance

69. Which of the following industry *least likely* has higher operating leverage?

    A. A large retail store
    B. A pharmaceutical firm
    C. A software development firm

    Correct Answer: A

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

    Industries that invest upfront to produce a product but spend little on making and distributing it tend to have high operating leverage e.g. software developers and pharmaceutical companies. In contrast retailers have low operating leverage.

70. An analyst presented the following criteria for accepting or rejecting a capital budgeting project using the profitability index.

    Criterion 1: "If the value of the index is greater than 1, then accept the project."

    Criterion 2: "If the cumulative discounted cash flow is greater than the initial investment, then accept the project."

    He is *most* accurate with respect to:

    A. Criterion 1.
    B. Criterion 2.
    C. Criteria 1 and 2.

    Correct Answer: C

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

    If PI is greater than 1, the project is profitable. Also, if the PV of future cash flows (cumulative discounted cash flow) is greater than the initial investment, PI will be greater than 1, and the project will be profitable.

71. A corporate analyst is assessing an investment project with an initial investment of $900,000 that is depreciable straight line over a period of three years to a zero salvage value. Exhibit 1 displays cash flow information for the project.

Exhibit:
Cash Flow Information

	Year 1	Year 2	Year 3
Sales	$900,000	$950,000	$1,050,000
Cash expenses	$250,000	$300,000	$185,000

*Tax rate equals 35%

The average accounting rate of return for the project is *closest* to:

A. 33.01%.
B. 46.11%.
C. 60.91%.

Correct Answer: C

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

Depreciation: 900,000-0/3 = 300,000
Year 1 net income: (900,000-250,000-300,000)(1-0.35) = $227,500
Year 2 net income: (950,000-300,000-300,000)(1-0.35) = $227,500
Year 3 net income: (1,050,000-185,000-300,000)(1-0.35) = $367,250
Average net income: $274,083
Average book value: 900,000/2 = $450,000
AAR: 274,083/450,000 = 60.91%.

72. If a company engages in share repurchases, leverage will increase:

A. only if the repurchase is financed with debt.
B. only if the repurchase is financed with excess cash.
C. whether the repurchase is financed with debt or with excess cash.

Correct Answer: C

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

Both assets and shareholders' equity decline if the repurchase is financed with cash. As a result, leverage increases. Leverage will increase even more if the repurchase is financed with debt.

73. "The payback period has a number of drawbacks and is hence, not economically sound to use for capital budgeting. The discounted payback period, however, addresses some of its limitations. It is, therefore, closest to the NPV criterion despite its limitations."

The statement is *most likely*:

A. Correct.
B. Incorrect, because it is not closest to the NPV criterion.
C. Incorrect, because it has similar limitations to the payback period.

Correct Answer: B

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

The statement is incorrect because the Profitability index is closest to the NPV criterion. The discounted payback period does not consider all of the project's cash flows and is hence, not suitable for capital budgeting decisions (in isolation).

74. Alex Paul is considering the NPV profile of two projects of differing scales. The required return corresponds to the crossover point of the profile. The IRR of Project A is 7 percentage points lower than the IRR of project B.

Which of the following *best* represents the appropriate investment decision?

A. Invest in Project A.
B. Invest in Project B.
C. Invest either in Project A or Project B.

Correct Answer: C

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

Since the required return corresponds to the crossover point of the NPV profile—the point where both projects would have equal NPVs—investing in either project is appropriate since their NPVs are equal at the required rate of return.

75. Zephyr Products Incorporated (ZPI) plans to invest in large warehouse facility to increase storage capacity. ZPI has 150 million shares outstanding with a current market price of $85.00/share. As soon as ZPI announces its plan to invest in the project, the share price rises to $86.70/share. No other expectations about the company's future performance changed.

The NPV of the project is *closest* to:

A. $170 million.
B. $255 million.
C. $260 million.

Correct Answer: B

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

The rise in price is most likely due to the announcement of the project. Hence, the NPV of the project:

Value Before announcement: 85(150 million) = $12,750 million
Value After announcement: 86.70(150) = $13,005 million
So NPV: 13,005-12,750 = $255 million.

76. An analyst is assessing the capital structure of an automobile company. Exhibit 1 displays key information about the company's vitals.

Exhibit:

Five year average preferred dividend	$4.50/share
Current preferred dividend	$5.50/share
Current stock price	$60/share
Market risk premium	7.0%
Stock beta	1.45
Risk-free rate	4.0%
Tax rate	40%
Debt/equity	0%
% of preferred stock in the capital structure	25%

The company's WACC is *closest* to:

A. 11.99%.
B. 12.49%.
C. 12.90%.

Correct Answer: C

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

75% is common equity and 25% is preferred equity (no debt)
Return on common equity: 4.0+1.45(7) = 14.15%
Cost of preferred equity: 5.50/60 = 9.167% (current preferred dividend will be used to reflect current costs; no tax adjustment will be made).
WACC: 0.25(9.167) + 0.75(14.15) = 12.904%

Questions 77 through 88 relate to Equity Investment

77. An industry tends to be *more* competitive when the industry:

    A. is not fragmented.
    B. has high fixed costs.
    C. sells differentiated products.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 14, Reading 49

An industry tends to be *more* competitive when the industry:

- is fragmented.
- has high fixed costs.
- sells undifferentiated products.
- has high exit barriers.

78. Walter Dan bought 1,000 shares of Red Corporation (RECO) last year when the purchase price was $150/share. Dan's equity financed only 40% of the purchase price. Just recently, Dan found out that RECO's stock's price had fallen to $120/share. The stock paid not dividends during the year.

Ignoring all other cash flows, if Dan had financed 0% of the purchase price, his loss on the investment would have been:

    A. 13.33% lower.
    B. 30.00% lower.
    C. 45.62% lower.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 45

Price Change is 120-150/150 = -20%
Ignoring all other cash flows, with leverage the realized loss is : 2.5 (20) = 50% (with 40% equity, leverage ratio equals 2.5). So the loss is 30% greater.

79. Lyon works for a firm that trades in several derivative contracts including swaps, futures and forwards. Lyon's research indicates that the rate on credit default swaps covering the bonds issued by Bright Enterprises (BEN) is significantly lower than warranted. He therefore plans to buy a CDS covering BEN's bonds.

With respect to his trading motive, Lyon is *most likely* a(an):

A. hedger.
B. investor.
C. information-motivated trader.

Correct Answer: C

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 45

Lyons is an informed trader who believes that the credit default swaps written on BEN's bonds have swap prices that are low. If he is correct, he would profit because the payoff to the swap would be more than the cost of buying and maintaining the swap position.

80. If the central bank wants to decrease the money supply to curb inflationary pressures it would *most likely*:

A. sell bills, notes and bonds to primary dealers.
B. buy notes, bills and bonds from dealers and brokers.
C. sell bills, notes and bonds to primary dealers and brokers.

Correct Answer: A

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 45

Primary dealers are dealers with whom central banks trade when conducting monetary policy. The central bank will sell bills, notes and bonds to primary dealers if it wants to curb inflation.

81. Which of the following statements *best* describes the weighing methods used in price-weighted and equal-weighted indices?

In price-weighted indices, the weights are:

A. determined by market prices whereas in equal-weighted indices the weights always remain fixed.
B. arbitrarily determined whereas in equal-weighted indices the weights are assigned by the index provider.
C. determined by market prices whereas in equal-weighted indices the weights reflect the relative value of each security.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 46

Unlike a price-weighted index, where the weights are arbitrarily determined by market prices, the weights in an equal-weighted index are assigned by the index provider.

82. Many markets allow brokers to lend their clients more money if the brokers use risk models to measure and control the overall risk of their clients' portfolios. This system is called:

A. risk management.
B. portfolio margining.
C. leverage control and risk management.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 45

Many markets allow brokers to lend their clients more money if the brokers use risk models to measure and control the overall risk of their clients' portfolios. This system is called portfolio margining.

83. The primary disadvantage of price-weighted index is:

A. its complexity.
B. that it results in arbitrary weights for each security.
C. that constituent securities whose prices have risen the most, have a greater weight in the index.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 46

- The primary advantage of price-weighted index is its simplicity.
- The primary disadvantage of price-weighted index is that it results in arbitrary weights for each security.

- The primary disadvantage of market capitalization weight (including float-adjusted) is that constituent securities whose prices have risen (or fallen) the most have a greater (or lower weight) in the index.

84. An investment manager just bought a stock on margin posting 30 percent of the initial stock price of $75/share as equity. The maintenance margin requirement for the position is 35%.

The price below, which a margin call will occur, is *closest* to:

A. $80.77.
B. $79.05.
C. $78.37.

Correct Answer: A

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 45

22.5+P-75/P = 35%
P = $80.769

85. The following Exhibit provides information about the limit orders standing in a continuous trading market.

Exhibit:
Limit Order Book

Buyer	Bid Size	Limit Price ($)	Offer Size	Seller
A	35	50.00		
B	40	50.50		
C	55	50.70		
D	20	51.00		
		51.50	100	E

If a seller F submits a day order to sell 125 contracts, limit $50.50, his/her average selling price will be *closest* to:

A. $50.68.
B. $50.73.
C. $50.78.

Correct Answer: A

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 45

Seller F's sell order first fills in with the most aggressively priced buy order (and then so on).
Average selling price: 20(51.00)+55(50.70)+40(50.50)/20+55+40 = $50.6826

86. For the same index, as time passes, the value of the total return index will exceed the value of the price return index by a(an):

A. consistent amount.
B. increasing amount.
C. decreasing amount.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 46

As time passes, the value of the total return index will exceed the value of the price return index by an increasing amount.

87. Which of the following weighting methods would produce an effect *closest* to a momentum investment strategy?

A. Price weighting.
B. Market-capitalization weighting.
C. Both price weighting and market-capitalization weighting.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 46

The effect of market capitalization weighting is similar to a momentum investment strategy in that over time, the securities that have risen in price the most will have the largest weights in the index.

88. While describing the various types of market structures to a group of internees, a portfolio manager made the following comment:

"The order matching rules that characterize order-driven markets help increase market liquidity. The complete precedence hierarchy is given by price priority, time precedence and display precedence."

The above comment is *most* accurate with respect to:

A. market liquidity only.
B. the precedence hierarchy only.
C. market liquidity and the precedence hierarchy.

Correct Answer: A

Reference:
CFA Level I, Volume 5, Study Session 13, Reading 45

The precedence hierarchy is given by price priority, display precedence, and then finally, time precedence.

Questions 89 through 94 relate to Derivative Investments

89. Which of the following is essentially a call option?

    A. Credit-linked note.
    B. Credit spread option.
    C. Credit default swap (CDS).

    Correct Answer: B

    Reference:
    CFA Level I, Volume 6, Study Session 17, Reading 57

    A credit spread option is essentially a call option in which the underlying is the credit spread.

    The investor will go long to protect against rising interest rates.
    Payment to the long: (0.0735-0.065)(180/360)/[1+0.0735 (180/360)] = 0.004099($15 million) = $61,490.

90. Some futures contracts contain a provision limiting price changes. Price limits are important because they help:

    A. manage credit risk.
    B. ensure smoothly operating markets.
    C. matching of long and short parties.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 6, Study Session 17, Reading 57

    Price limits help the clearinghouse manage its credit exposure. Sharply moving prices make it more difficult for the clearinghouse to collect from the parties losing money.

91. Which of the following swaps will *best* make a bet on the credit risk premium of London banks?

A. Basis swap.
B. Plain vanilla swap.
C. Overnight indexed swaps.

Correct Answer: A

Reference:
CFA Level I, Volume 6, Study Session 17, Reading 57

In a basis swap, one party pays the LIBOR and the other pays the T-bill rate. The spread between the two is a measure of credit risk premium of London banks.

92. Which of the following *best* represents the payoff value and the profit for an at-the-money call option?

A. Positive and zero respectively.
B. Zero and negative respectively.
C. Positive and negative respectively.

Correct Answer: B
Reference:
CFA Level I, Volume 6, Study Session 17, Reading 57

For an at-the-money call option, value will equal zero because the market price will equal the exercise price. Also, profit will be negative because the premium has yet to be recovered.

93. An institutional investor enters a FRA contract to protect against rising interest rates on a bank loan. The FRA is based on LIBOR as the underlying and is quoted at a rate of 6.5%. while at expiration the LIBOR is 7.35%.

The investor will *most likely* take the:

A. long position in the FRA contract and will gain at the end of the contract.
B. short position in the FRA contract and will lose at the end of the contract.
C. short position in the FRA contract and will gain at the end of the contract.

Correct Answer: A

Reference:
CFA Level I, Volume 6, Study Session 17, Reading 58.

The investor will go long the FRA contract to protect against rising interest rates. As the rates have increased therefore the investor will gain at the end of the contract.

94. Going long a bond is equivalent to:

A. selling the underlying as well as investing in the call and put options.
B. purchasing the underlying, investing in a put option and selling the call option.
C. selling the underlying, selling the put option and purchasing the call option.

Correct Answer: B

Reference:
CFA Level I, Volume 6, Study Session 17, Reading 58.

A long bond is equivalent to going long a put, long the underlying, and short the call.

Questions 95 through 106 relate to Fixed Income

95. A bond is currently priced at 89.187 per 100 par value. If yields increase by 10bp, the value of bond falls to 88.215. However, if yields decrease by the same amount the value of the bond rises to 90.237.

    The approximate modified duration for the bond is *closest* to:

    A. 10.51.
    B. 11.33.
    C. 12.67.

    Correct Answer: B

    Reference:
    CFA Level I, Volume 5, Study Session 16, Reading 55

    Modified duration: 90.237-88.215/2(0.001)(89.187) = 11.3357

96. The presence of an embedded call option will decrease the effective duration of a bond:

    A. only when interest rates are rising.
    B. only when interest rates are falling.
    C. for both rising and falling interest rates.

    Correct Answer: B

    Reference:
    CFA Level I, Volume 5, Study Session 16, Reading 55

    When interest rates are falling, the effective duration of a callable bond will be lower than that of an otherwise comparable non-callable bond. At high interest rates, the effective durations of the callable and non-callable bonds are very similar.

97. A financial consultant made the following comment while addressing a team of newly hired portfolio managers:

"The accuracy of duration measures is improved by choosing a smaller yield-to-maturity change."

The statement is *most* accurate with respect to:

A. modified duration only.
B. effective duration only.
C. modified duration and effective duration.

Correct Answer: A

Reference:
CFA Level I, Volume 5, Study Session 16, Reading 55

Estimates of interest rate risk using effective duration are not necessarily improved by choosing a smaller change in benchmark rates. The statement is true for modified duration.

98. The use of which of the following will *least likely* aid underwritten bond offerings in price discovery?

A. Anchors.
B. Auctions.
C. Grey market.

Correct Answer: B

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

Trading in the grey market helps underwriters determine what the final offering price should be. The underwriter can also approach large institutional investors to discuss with them the kind of bond issues they are willing to buy. These buyers are known as the 'anchor'. Auctions are not used by underwriters for price discovery.

99. For the same time to maturity and yield to maturity, the Macaulay duration will be *lowest* for a:

A. zero-coupon bond.
B. low-coupon bond trading at a discount.
C. high-coupon bond trading at a premium.

Correct Answer: C

Reference:
CFA Level I, Volume 5, Study Session 16, Reading 55

Macaulay duration will be lowest for a high-coupon bond trading at a premium and highest for a zero-coupon bond.

100. An U.S. based analyst invests 20% of her portfolio in fixed-income securities. Part of her focus, while investing, is on credit risk and foreign-exchange rate risk. She thus invests in sovereign bonds issued by the Russian government. The bonds are denominated in U.S. dollars.

By investing in the bonds, the analyst has *most likely* addressed:

A. her concerns.
B. none of her concerns.
C. only one of her concerns.

Correct Answer: C

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

Since the bonds are denominated in U.S. dollars, there is no foreign exchange rate risk. However, even *sovereign* bonds of emerging economies have credit risk, especially if they are issued in a different currency. Hence, the analyst has addressed only one of her concerns.

101. An investor just purchased a bond with a stated coupon rate of 6.5% paid semiannually. Since the bond was purchased between coupon dates, the investor had to pay the seller the amount of accrued interest also.

Holding everything else constant, if the investor paid the amount of reported accrued interest to the seller, the paid amount would be:

A. correct.
B. slightly higher because the accrued interest does not account for time value of money.
C. slightly lower because the reported accrued interest amounts are conservative measures.

Correct Answer: A

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

Accrued interest neglects the time value of money and hence is a little too high. The flat price is a little too low. The full price, however, is correct because it is the sum of the present values of all future cash flows. Since the investor paid the *full* price, the amount paid is correct.

102. If a longer time to maturity leads to a lower modified duration for a bond, the bond is *most likely* priced at a:

A. discount, and is zero coupon.
B. discount, and has a low coupon.
C. premium, and has a high coupon.

Correct Answer: B

Reference:
CFA Level I, Volume 5, Study Session 16, Reading 55

Sometimes for a discount bond, a longer time to maturity might lead to a lower duration. This situation only occurs if the coupon rate is low relative to the yield.

103. Which of the following investments are *mostly* based on a floating interest rate?

A. Sovereign bonds.
B. Supranational bonds.
C. Syndicated or bilateral loans.

Correct Answer: C

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

Syndicated or bilateral bonds are mostly based on floating interest rates. Sovereign and supranational bonds are mostly fixed-rate bonds.

104. A three-year German floating-rate note pays the three-month Euribor plus 1.55%. The floater is priced at 97.65. The Euribor is currently at 3.5% and is assumed to remain constant over the life of the floater.

If a 30/360 day count convention is used, the discount margin will be *closest* to:

A. 148 bps.
B. 155 bps.
C. 241 bps.

Correct Answer: C

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

PV = 97.65
coupon rate: 3.5%+1.55% = 5.05%/4 = 1.2625%
n = 12
FV = 100
r = ? 1.4776%
0.014776 = 0.035 +DM/4
DM = 0.024106

105. For a discount rate greater than zero, if the money market discount rate is used as a proxy for an investor's rate of return, the rate of return will *most likely* be:

A. overstated.
B. understated.
C. correctly stated.

Correct Answer: B

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

As long as discount rate is greater than zero, a money market discount rate *understates* the rate of return to an investor.

106. Catherine Dingman, a portfolio manager, is analyzing the following investment options for inclusion in a client's portfolio.

Security 1: A T-bill with a maturity of 6-months.
Security 2: U.S. dollar commercial paper with a maturity of 160 days.
Security 3: A U.S. based municipal bond that matures in six months.

The yield will be *highest* for security:

A. 1.
B. 2.
C. 3.

Correct Answer: B

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

The yield on commercial paper is higher than on short-term municipal bonds (especially in the U.S.), because of tax reasons. Hence, security 2 will have the highest return (even though its maturity is slightly less).

Questions 107 through 112 relate to Alternative Investments

107. V-Tex Monetary Fund is one of the best performing hedge funds in the U.S. The fund has $350 million of assets under management and a '2 and 30' fee structure. Last year, the fund earned a return of 20% and the ending capital position was established as a high water mark. This year, the fund value stood at $320 million before the payment of any fees. Management fees and incentive fees are calculated independently using end-of-period values.

The ending capital position at the end of this year will be *closest* to:

A. $287.4 million.
B. $302.1 million.
C. $313.6 million.

Correct Answer: C

Reference:
CFA Level I, Volume 6, Study Session 18, Reading 60

350*0.20 = $70 million profit
420*0.02 = $8.4 million management fee
(420-350)*30% = $21 million incentive fee
Ending value 350-(8.4+21) = 320.6 million
Since this year's value of $320 is less than the HWM $320.6 million, no incentive fees would be paid.
$320*0.02 = $6.4
Ending cap position: 320-6.4 = $313.6

108. A hedge fund manager uses event driven strategies to generate positive return for his fund. This strategy *most likely* involves:

A. top down analysis.
B. bottom up analysis.
C. fundamental analysis.

Correct Answer: B

Reference:
CFA Level I, Volume 6, Study Session 18, Reading 60

Event driven strategies generate positive return by exploiting opportunities created by short-term corporate events and usually involves ***bottom up*** analysis.

109. A commodity futures market is characterized by high storage costs and little convenience yield. The prices in such a market are *most likely*:

   A. in contango.
   B. in backwardation.
   C. unbiased predictors of future spot prices.

Correct Answer: A

Reference:
CFA Level I, Volume 6, Study Session 18, Reading 60

With low convenience yields and high storage costs, future prices will be higher than spot prices and the prices would be in contango.

110. The three components of return for each commodity futures contract are: the roll yield, the collateral yield and the change in spot prices of the underlying commodity. The primary determinant of which of the following components is the relationship between current supply and demand?

   A. Roll yield.
   B. Spot prices.
   C. Collateral yield.

Correct Answer: B

Reference:
CFA Level I, Volume 6, Study Session 18, Reading 60

The primary determinant of spot (or current) prices is the relationship between current supply and demand.

111. Which of the following alternative investments is *most suitable* for those investors who seek liquidity

A. Private equity funds
B. Real Estate ownership
C. Exchange traded funds

Correct Answer: C

Reference:
CFA Level I, Volume 6, Study Session 18, Reading 60

For those investors who seek liquidity, publicly traded securities, such as shares of REITs, exchange traded funds (ETFs) and publicly traded private equity firms may serve as the means for investing in alternatives.

112. Unique features of real estate property *least likely* include:

A. indivisibility.
B. homogeneity.
C. fixed location.

Correct Answer: B

Reference:
CFA Level I, Volume 6, Study Session 18, Reading 60

Some unique features of real estate property are indivisibility, heterogeneity and fixed location.

Questions 113 through 120 relate to Portfolio Management

113. Investors are generally compensated for holding assets or portfolios based:

    A. on that investment's total risk.
    B. only on that investment's systematic risk.
    C. only on that investment's diversifiable risk.

    Correct Answer: A

    Reference:
    CFA Level I, Volume 4, Study Session 12, Reading 43

    Investors are compensated for holding assets or portfolios based only on that investment's systematic risk.

114. A share with standard deviation of 46% is trading in a market where the expected return on the market portfolio is 16% and its standard deviation is 28%. If the risk free rate is 4.5% and the share is uncorrelated with the market, the expected return of the share is *closest* to:

    A. 4.50%
    B. 11.50%
    C. 13.64%

    Correct Answer: A

    Reference:
    CFA Level I, Volume 4, Study Session 12, Reading 43

    The share is uncorrelated with the market therefore its beta is 0 and its expected is equal to the risk free rate.

    $E(\mathrm{R_i}) = R_f + \beta_i\,[E(\mathrm{R_m}) - R_f = 0.045 + 0\ (0.16 + 0.045) = 0.045 = 4.5\%$

115. An investor desires to invest in a pooled investment product that would offer him maximum flexibility with regards to portfolio construction.

Which of the following products would be *most* suitable for the investor?

A. A hybrid fund as it allows investment in both stocks and bonds.
B. An ETF, but its price may or may not equal the underlying net asset value.
C. A separately managed account, but it would require a high minimum investment amount.

Correct Answer: C

Reference:
CFA Level I, Volume 4, Study Session 12, Reading 42

A separately managed account would offer maximum flexibility because the investor has control over which assets are bought and sold and the timing of the transactions. However, the required minimum investment is usually much higher than is the case with a mutual fund.

116. Which of the following about the efficient frontier and the global minimum-variance portfolio is *least* accurate?

A. As risk increases, the efficient frontier offers increases in returns at a decreasing rate.
B. An investor cannot hold a portfolio of assets that has less risk than the global minimum-variance portfolio.
C. A portfolio towards the left of the efficient frontier would offer greater return for the same or lesser risk but will be unattainable.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 12, Reading 42

An investor cannot hold a portfolio consisting of *risky* assets that has less risk than that of the global minimum-variance portfolio (an investor can combine his portfolio with a risk-free asset to get attain lower risk). Options A and C are correct.

117. Anthony Mecca is an appraisal consultant that has been hired by an investment management firm to assess the performance of three asset managers within the firm.

Which of the following returns should Mecca focus on to compare the investment skill of the asset managers?

A. Gross returns.
B. Net, after-tax returns.
C. After-tax, real returns.

Correct Answer: A

Reference:
CFA Level I, Volume 4, Study Session 12, Reading 42

Gross return is an appropriate measure for evaluating and comparing the investment skill of asset managers because it does not include any fees related to the management and administration of an investment.

118. Elaine Lopez has $70,000 that she plans to invest in a mutual fund. Lopez has shortlisted two mutual funds and is currently evaluating their return prospects. Exhibit 1 displays the data that Lopez gathered for this purpose. Lopez expects a 3% inflation rate for the coming future.

Exhibit

	Gross Return	Indirect Expenses	Assets under management	Tax Rate
Fund A	17%	$600,000	$45,000,0000	25%
Fund B	22%	$750,000	$30,000,000	20%

Lopez should choose:

A. fund A.
B. fund B.
C. either Fund A or Fund B.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 12, Reading 42

Net return after taxes:
Fund A:[0.17-(600,000/45,000,000)](1-0.25) = 11.75%
Fund B: [0.22-(750,000/30,000,000)](1-0.20) = 15.6%
Fund B has a higher net after tax return so Lopez should choose Fund B.

119. If the return distribution of a stock index is negatively skewed, standard deviation will *most likely* be:

A. underestimated, with the distribution concentrated to the left.
B. overestimated, with the distribution concentrated to the right.
C. overestimated, with the distribution concentrated to the left.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 12, Reading 42

The standard deviation is based on a normal distribution. Stock returns are usually negatively skewed because there is a higher frequency of negative deviations from the mean, which also has the effect of overestimating standard deviation. For a negatively skewed distribution, most of the values are concentrated to the right.

120. A portfolio manager is attempting to develop a risk-return tradeoff curve for one of its largest private wealth clients. While developing the client's investment policy statement, the manager determines that he has above-average risk tolerance. The client's optimal asset allocation is thus, heavily skewed towards equity investments.

The client's risk-return tradeoff curve will *most likely* have a:

A. zero slope.
B. less than zero slope.
C. greater than zero slope.

Correct Answer: B

Reference:
CFA Level I, Volume 4, Study Session 12, Reading 42

For risk-lovers, the risk-return tradeoff curve (indifference curve) will exhibit a negative slope, implying that the risk-lover is happy to substitute risk for return.