



CAIA Prerequisite Diagnostic Review (PDR) and Answer Key

Form A

All candidates of the CAIA program need to have an understanding of the prerequisite material. **However, you are NOT required to demonstrate such an understanding to the CAIA Association prior to becoming a Level I candidate.** We recommend that you read through the prerequisite outline, that you spend time studying in any area where your background is insufficient, and that you take this Prerequisite Diagnostic Review (PDR). Completing this voluntary evaluation is not compulsory but merely a tool to help you determine your readiness for Level I.

We recommend that you take the review under CAIA exam conditions -- a two hour (120 minute) time limit and using no outside reference materials.

You will need a calculator to work through the prerequisite materials. The calculations you are required to perform range from simple mathematical operations to more complex methods of valuation. **For your information, the CAIA Association allows candidates to bring into the examination the TI BA II Plus (as well as the Professional model) or the HP 12C (as well as the Platinum edition). For Level I and Level II CAIA Exams, no other calculators will be allowed in the testing center.**

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CAIA Prerequisite Diagnostic Review and Answer Key Form A

Question 1

Which of the following is TRUE of corporate bonds?

- A. Corporate callable bonds give the holder the right to exchange the bond for a specified number of the company's common shares.
- B. Corporate debentures are not backed by specific collateral.
- C. Corporate subordinated debentures have the highest priority claim.
- D. Corporate bonds, in most cases, do not return the face value upon maturity.

Question 2

At which tax bracket are the after-tax returns on a corporate bond paying a coupon of 8.5% and a tax-exempt bond paying a coupon of 6.12% equivalent?

- A. 15%
- B. 28%
- C. 33%
- D. 45%

Question 3

Which term refers to the characteristic of common stock that says that the most a shareholder can lose is the amount of their original investment?

- A. Residual claim
- B. Revenue sharing
- C. Proxy
- D. Limited liability

Use the information below to answer the following two questions.

<u>Stock</u>	<u>Price</u>	<u>Number of shares outstanding</u>
Stock A	\$40	200
Stock B	\$70	500
Stock C	\$10	600

Question 4

What is the value-weighted index of these three stocks if the divisor is 100?

- A. 156
- B. 400
- C. 430
- D. 490

Question 5

What is the value-weighted index of these three stocks if the divisor is 100 and if stock B split 2 for 1 and stock C split 4 for 1?

- A. 490
- B. 800
- C. 880
- D. 936

Question 6

Which of the following is TRUE regarding private placements of primary security offerings?

- A. They are only available to private individuals.
- B. They trade mostly in secondary markets such as stock exchanges.
- C. They trade with high liquidity.
- D. They are shares sold directly to a small group of institutional or wealthy investors.

Question 7

Which one of the following statements about types of orders is FALSE?

- A. Market orders are instructions to buy or sell at the prevailing market price.
- B. Limit sell orders are instructions to sell at or below a particular price.
- C. Stop buy orders are instructions to buy when prices rise above some limit.
- D. Day orders expire at the close of the trading day.

Question 8

Suppose you buy 100 shares of common stock at a market price of \$70, and that you use margin from a broker. If the initial margin is 50% and if the maintenance margin is 30%, what stock price would generate a margin call?

- A. \$21
- B. \$35
- C. \$50
- D. \$70

Question 9

You purchased 300 shares of common stock on margin for \$60 per share. The initial margin is 60%. Which of the following comes closest to your rate of return if you sell the stock at \$45 per share?

- A. -25%
- B. -33%
- C. -42%
- D. -54%

Question 10

Suppose you short 500 shares of common stock at \$40 per share. What is your initial percentage margin if at the time you have cash and securities in your account worth \$6,000?

- A. 30%
- B. 40%
- C. 50%
- D. 60%

Question 11

What is your maximum loss on a short position of 100 shares of Loser Co. if you short sell at a market price of \$45 per share?

- A. \$0
- B. \$2,250
- C. \$4,500
- D. Unlimited

Question 12

A mutual fund reported year-end assets of \$279 million and year-end liabilities of \$43 million. Which of the following comes closest to the number of shares in the fund if the fund's net asset value (NAV) was \$42.13?

- A. 1.18 million
- B. 5.61 million
- C. 6.49 million
- D. 9.94 million

Question 13

What type of investment company invests pools of money in a portfolio that is fixed for the life of the fund?

- A. Closed-end funds
- B. Hedge funds
- C. Unit investment trusts
- D. Commingled trusts

Question 14

A mutual fund had a net asset value per share of \$17.50 on January 1 of the current year. One year later, on December 31 of the same year, the fund's NAV was \$19.50. Income distributions were \$0.75 and the fund had capital gain distributions of \$1.00. What amount comes closest to the rate of return on the fund?

- A. 1.4%
- B. 12.8%
- C. 19.2%
- D. 21.4%

Question 15

What is a bond's current yield?

- A. The yield to maturity
- B. The coupon payment divided by the par value
- C. The coupon payment divided by the price
- D. The par value divided by the price

Question 16

Which of the following regarding accrued interest is TRUE?

- A. Bond prices are quoted net of (without) accrued interest.
- B. If purchased between coupon dates, the seller must pay the buyer for accrued interest.
- C. Accrued interest must be paid to the broker for the inconvenience of selling bonds between maturity dates.
- D. The sale (or invoice price) of a bond is equal to the stated price minus the accrued interest.

Question 17

What type of bond provides to the investor the option to redeem the bond prior to maturity at a specified price?

- A. A callable bond
- B. A puttable bond
- C. A swap bond
- D. A debenture

Question 18

Floating rate bonds seek to minimize what type of risk?

- A. Interest rate risk
- B. Liquidity risk
- C. Counterparty risk
- D. Default risk

Question 19

Which of the following comes closest to the conversion premium of a convertible bond that has a par value of \$1,000, a current market value of \$850, a conversion ratio of 30, and whose stock trades currently at \$27 per share?

- A. \$ 40
- B. \$150
- C. \$190
- D. \$200

Question 20

Which of the following is closest to the price of a zero-coupon annual pay bond with the following characteristics: yield to maturity = 9%, par value = \$1,000, and maturity = 8 years?

- A. \$483.49
- B. \$501.87
- C. \$513.16
- D. \$526.92

Question 21

An 8% coupon 30-year annual pay bond has a par value of \$1,000 and sells for \$1,150. The bond is callable in 10 years at a call price of \$1,100. Which of the following comes closest to the bond's yield to call?

- A. 6.25%
- B. 6.65%
- C. 7.05%
- D. 7.45%

Question 22

Under what circumstances would we expect a bond to sell at a discount?

- A. When the coupon rate is greater than the current yield and the current yield is greater than yield to maturity.
- B. When the coupon rate is greater than yield to maturity.
- C. When the coupon rate is less than the current yield and the current yield is greater than the yield to maturity.
- D. When the coupon rate is less than the current yield and the current yield is less than yield to maturity.

Question 23

What is Altman's Z score used to predict?

- A. Bankruptcy risk
- B. The yield to maturity for new bond issues
- C. The holding period return of an already issued bond
- D. The probability of a bond issue being called away by the issuer

Question 24

Which of the following is NOT associated with subordination clauses in bond indentures?

- A. Restrictions on the amount of additional borrowing the firm can undertake
- B. Me-first rules
- C. Assignments of higher priority in the event of bankruptcy
- D. Restrictions on the payment of dividends

The following is a list of prices for zero coupon bonds with different maturities and par values of \$1,000. Use this table to answer the next two questions.

<u>Maturity (Years)</u>	<u>Price</u>
1	\$943.40
2	\$881.68
3	\$808.88
4	\$742.09

Question 25

Which of the following comes closest to the yield to maturity on a 3-year zero coupon bond?

- A. 6.37%
- B. 7.33%
- C. 9.00%
- D. 10.00%

Question 26

Suppose that the 4-year spot rate is 9.95% and the 3-year spot rate is 9.80%. Using this information, which of the following is closest to the 1-year forward rate in year 3?

- A. 9.95%
- B. 10.00%
- C. 10.25%
- D. 10.40%

Question 27

Which of the following two bonds is more price sensitive to changes in interest rates and why?

Bond X: A par value bond with a 5-year-to-maturity and a 10% coupon rate.

Bond Y: A zero-coupon bond with a 5-year-to-maturity and a 10% yield-to-maturity.

- A. Bond X because of the higher yield to maturity.
- B. Bond X because of the longer time to maturity.
- C. Bond Y because of the longer duration.
- D. Both have the same interest rate sensitivity.

Question 28

Holding other factors constant, which one of the following bonds would you expect to have the largest price volatility due to a change in interest rates?

- A. The 5-year 0% coupon bond
- B. The 25-year 0% coupon bond
- C. The 5-year, 10% coupon bond
- D. The 25-year 10% coupon bond

Question 29

Which of the following refers to the curvature of the price-yield curve for a given bond?

- A. Modified duration
- B. Immunization
- C. Macaulay's duration
- D. Convexity

Question 30

Suppose that a callable bond with a call price of \$1,050 has a current market price of \$980. Suppose also that if the yield to maturity increases by 50 basis points, the bond's price will fall to \$930, and if the yield to maturity decreases by 50 basis points, the bond's price will rise to \$1,010. Which of the following comes closest to the bond's effective duration?

- A. 10.56
- B. 9.86
- C. 9.36
- D. 8.16

Question 31

Why is immunization not strictly a passive bond management strategy?

- A. Immunization requires choosing an asset portfolio that matches an index.
- B. There is likely to be a gap between the values of assets and liabilities in most portfolios.
- C. Immunization requires frequent rebalancing as maturities and interest rates change.
- D. The duration of assets and the duration of liabilities usually fall at the same rate.

Question 32

Which of the following statements about contingent immunization is FALSE?

- A. It is a strategy that mixes active management with passive management.
- B. It is a strategy that guarantees some minimum acceptable portfolio value at the horizon point.
- C. It is a strategy that specifies both a minimum and a maximum value of the portfolio.
- D. It is a strategy that allows for active management in some but not in all scenarios.

Question 33

Under what condition is the dividend discount model with constant growth valid?

- A. When the dividend per share is not expected to change
- B. When the growth rate in the dividend is less than the price per share
- C. When the market capitalization rate is greater than the growth rate in the dividend
- D. When the growth rate in the dividend is expected to change periodically

Question 34

XYZ Corporation's return on equity of 14.5% is below its payout ratio of 20%. Which of the following comes closest to an estimate of XYZ's growth rate in dividends?

- A. 11.6%
- B. 8.1%
- C. 5.5%
- D. 2.9%

Question 35

A particular company is expected to pay a dividend in year 1 of \$1.65, a dividend in year 2 of \$1.97, and a dividend in year 3 of \$2.54. After year 3, dividends are expected to grow at the rate of 8% per year. Which of the following comes closest to an estimate of the value of the company per share if its required return is 11%?

- A. \$33.00
- B. \$52.40
- C. \$71.80
- D. \$91.20

Question 36

Which of the following statements about the P/E ratio and growth opportunities is FALSE?

- A. A high P/E ratio indicates a lack of growth opportunities.
- B. The P/E ratio increases with ROE.
- C. The P/E ratio increases with lower plowback.
- D. A PEG ratio of 1.0 indicates that the firm's growth rate is equal to its P/E ratio.

Question 37

Which of the following approximates the after-tax real rate of interest from the Fisher equation?

- A. The nominal rate minus the after tax expected inflation rate
- B. The after-tax nominal rate plus the expected inflation rate
- C. The expected inflation rate divided by the after tax nominal rate
- D. The after-tax nominal rate minus the expected inflation rate

Question 38

An investment of \$1 grows to \$4.29 dollars in 25 years. Which of the following comes closest to the effective annual return on this investment?

- A. 4.29%
- B. 6.00%
- C. 8.58%
- D. 17.16%

Use the following probability distribution for the holding period return for a stock to answer the following two questions.

State of the Economy	<u>Probability</u>	<u>HPR</u>
Boom	.40	22%
Normal growth	.35	11%
Recession	.25	- 9%

Question 39

Which of the following comes closest to the standard deviation of returns for this stock?

- A. 8.00%
- B. 9.96%
- C. 11.74%
- D. 12.17%

Question 40

If the Treasury bill rate is 3%, which of the following comes closest to the stock's Sharpe ratio?

- A. 0.08
- B. 0.35
- C. 0.62
- D. 0.89

Question 41

Which of the following defines the geometric average return on a stock if the stock earned an arithmetic return of 10% in year 1, 20% in year 2 and 30% in year 3?

- A. The geometric average return will be greater than the arithmetic average return.
- B. The geometric average return will be equal to the arithmetic average return.
- C. The geometric average return will be less than the arithmetic average return.
- D. The geometric average return will be zero.

Question 42

Which of the following is used to measure the degree of fat tails in a distribution?

- A. Skewness
- B. Kurtosis
- C. Serial Correlation
- D. Variance

Question 43

Which of the following measures of risk best highlights the potential loss from extreme negative returns?

- A. Value at Risk (VaR)
- B. Conditional Tail Expectation (CTE)
- C. Lower Partial Standard Deviation (LPSD)
- D. Serial correlation

Question 44

How would an investor who judges risky prospects solely by their expected rate of return be classified?

- A. Risk minimizing
- B. Risk averse
- C. Risk loving
- D. Risk neutral

Question 45

According to the mean-variance criterion and using the data in table, which of the following statements is correct?

Investment	E(r)	Standard Deviation
A	10%	5%
B	21%	11%
C	18%	23%
D	24%	16%

- A. Investment B dominates Investment A
- B. Investment B dominates Investment C
- C. Investment D dominates all of the other investments
- D. Investment D dominates only Investment B

Question 46

Suppose you invest \$100 in a risky asset with an expected rate of return of 12% and a standard deviation of 15%. Suppose also that a risk-free asset exists with a rate of return of 5%. Which of the following comes closest to the percentage of your money that must be invested in the risky asset to form a portfolio with a standard deviation of 6%?

- A. 30%
- B. 40%
- C. 50%
- D. 60%

Question 47

At what value of a correlation coefficient is the standard deviation of a two-asset portfolio a linear function of the assets' weights?

- A. Less than zero
- B. Equal to zero
- C. Greater than zero
- D. Equal to one

Question 48

An efficient frontier of risky assets exists along with an optimal capital allocation line (CAL) whereby an optimal risky portfolio, M, has an expected return of 11% and a standard deviation of 14%. The risk free rate is 5%. Which of the following is consistent with the separation property?

- A. All investors will invest in risky portfolio M.
- B. Some investors will invest in risky portfolio M, while others will choose another risky portfolio.
- C. All investors will invest in a risky portfolio other than portfolio M.
- D. Some investors will invest in risky portfolio M, but the risk averse investors will likely invest in the global minimum variance portfolio.

Question 49

What does the slope of the Security Market Line (SML) measure?

- A. Beta
- B. Alpha
- C. The difference between the expected return on the market and the risk free rate
- D. Standard deviation

Question 50

Which of the following statements about alpha and the Capital Asset Pricing Model (CAPM) is TRUE?

- A. A security with a positive alpha is considered overpriced.
- B. A security with a zero alpha is considered to be a good buy.
- C. A security with a negative alpha is considered to be a good buy.
- D. A security with a positive alpha is considered to be underpriced.

Question 51

According to the Capital Asset Pricing Model (CAPM), where will an underpriced security plot on the Security Market Line (SML)?

- A. Directly on the SML
- B. Below the SML
- C. Above the SML
- D. Either above or below the Security Market Line depending on its covariance with the market.

Question 52

What is the main implication of stock prices that follow a random walk?

- A. Investors are irrational.
- B. Markets are inefficient.
- C. Stock price levels are random.
- D. Stock price changes are random.

Question 53

What would a technical analyst expect to happen when a stock hits a resistance level?

- A. The number of people willing to sell the stock will increase substantially.
- B. The number of people willing to sell the stock will decrease substantially.
- C. The number of people willing to buy the stock will increase substantially.
- D. The demand of people willing to buy the stock will decrease substantially.

Question 54

What do chartists practice?

- A. Technical analysis
- B. Fundamental analysis
- C. Modern portfolio theory
- D. Insider analysis

Question 55

At the annual conference 500 analysts engage in a contest whereby a coin is flipped in hopes of it landing tails-up. After successive trials, one analyst is crowned the winner. This scenario is defined by which of the following terms?

- A. Regret avoidance
- B. Selection bias
- C. Framing
- D. The lucky event issue

Question 56

Which of the following would NOT be considered an empirical test of semistrong market efficiency?

- A. An analysis of small firms versus large firms.
- B. An analysis of firms that are followed by many analysts versus firms with little to no attention by analysts.
- C. An analysis of high price to earnings firms versus low price to earnings firms.
- D. An analysis of firms that have hit resistance levels versus those who have not.

Question 57

What did a study on a large sample of mutual funds (by Malkiel) between 1972 and 1991 find about average alphas?

- A. Average alphas were statistically significant and positive.
- B. Average alphas were significantly significant and negative.
- C. Average alphas were statistically indistinguishable from zero.
- D. Average alphas were statistically significant and positive before 1981 but statistically significant and negative thereafter.

Question 58

Which of the following describes a premise of behavioral finance?

- A. Conventional financial theory ignores how the average person makes decisions and that people make a difference.
- B. Conventional financial theory factors in emotions but the market is driven by rational utility maximizing investors.
- C. Conventional financial theory ignores how the average person makes decisions as the market is driven by sophisticated investors.
- D. Conventional financial theory is a one period model that ignores long term implications.

Question 59

Which type of information processing bias may be responsible for the prevalence of active versus passive investments management?

- A. Forecasting errors
- B. Overconfidence
- C. Representativeness
- D. Conservatism

Question 60

Which behavior bias describes why some investors have preference for high cash dividends and tend to hold losing positions too long?

- A. Mental accounting
- B. Framing
- C. Regret avoidance
- D. Prospect theory

Question 61

What does the technical trading rule known as the Dow Theory seek to identify?

- A. Head and shoulder patterns
- B. Breakaway points
- C. Resistance levels
- D. Long-term trends

Question 62

Which of the following is equivalent to the dollar-weighted return on a portfolio?

- A. The time-weighted return.
- B. The geometric average return.
- C. The arithmetic average return.
- D. The internal rate of return.

Question 63

What is the preferred method of calculating the rate of return when comparing the performance of different fund managers?

- A. The internal rate of return
- B. The arithmetic average
- C. The geometric rate of return
- D. The time-weighted rate of return

Use the data below to answer to following four questions.

	<u>Alpha Fund</u>	<u>Market Portfolio</u>
Average Return	20%	11%
Standard Deviation of Returns	44%	19%
Beta	1.8	1.0
Residual standard deviation	2.0%	0.0%

The risk-free return during the sample period was 3%.

Question 64

Which of the following is closest to Alpha's Sharpe measure?

- A. 8.67
- B. 20.45
- C. 38.64
- D. 45.45

Question 65

Which of the following is closest to Alpha's Treynor measure?

- A. 9.44
- B. 11.11
- C. 20.45
- D. 38.64

Question 66

Which of the following comes closest to Alpha's Jensen measure?

- A. 2.6
- B. 4.00
- C. 8.67
- D. 38.64

Question 67

Which of the following comes closest to Alpha's information ratio?

- A. -1.53
- B. 1.30
- C. 8.67
- D. 31.43

Question 68

Which of the following is true about performance measurement for hedge funds?

- A. Hedge fund returns can be captured by the standard linear index model.
- B. For hedge funds, down-market betas tend to be higher than up-market betas.
- C. Hedge funds tend to hold more liquid assets compared with other institutional investors.
- D. Lock-up provisions tend not to have an impact on hedge fund performance.

Question 69

The average country equity market represents what percentage share of the world equity market portfolio?

- A. Less than 2%
- B. Between 3% and 5%
- C. Between 5% and 7%
- D. Greater than 7%

Question 70

Which of the following is NOT a component of country-specific risk?

- A. Political risk
- B. Exchange rate risk
- C. Financial risk
- D. Economic risk

Question 71

What specific right is provided to the holder (buyer) of an American call option?

- A. To sell the underlying asset at the exercise price on or before the expiration date
- B. To buy the underlying asset at the exercise price on or before the expiration date
- C. To sell the underlying asset short on or before the expiration date
- D. To buy the underlying asset at the exercise price at the time of expiration

Question 72

In which of the following situations would a call option on a share of common stock be out-of-the-money?

- A. The exercise price is higher than the stock price.
- B. The exercise price is equal to the stock price.
- C. The exercise price is higher than the risk free rate.
- D. The exercise price is lower than the stock price.

Question 73

Which of the following represents the intrinsic value of an in-the-money call option?

- A. The difference between the stock price and the exercise price
- B. The premium
- C. The difference between the stock price and zero
- D. The difference between the exercise price and zero

Question 74

What is a covered call position?

- A. The simultaneous purchase of the call and the underlying asset
- B. The short sale of a share of stock with a simultaneous sale of a call on that stock
- C. The purchase of a share of stock with a simultaneous sale of a call on that stock
- D. The simultaneous purchase of a call and sale of a put on the same stock

Question 75

You buy one Xerox June call contract and one Xerox June put contract, both at an exercise price of \$60. The call premium is \$5 and the put premium is \$3. What is this strategy called?

- A. A short straddle
- B. A horizontal straddle
- C. A vertical straddle
- D. A long straddle

Question 76

Which position would be appropriate to the investor with a target wealth level in mind and who is unwilling to risk losses beyond a certain level?

- A. A collar
- B. A bullish spread
- C. A straddle
- D. A protective put

Question 77

A particular stock currently sells for \$48 and pays no dividend. A one-year call option with strike price of \$55 sells for \$9, and the risk free interest rate is 6%. According to put-call parity, which of the following comes closest to the price of a one-year put on the stock if the strike price rises to \$55?

- A. \$ 9.00
- B. \$12.89
- C. \$16.00
- D. \$18.72

Question 78

A typical convertible bond trading substantially above par is similar to what type of financial security?

- A. Straight debt
- B. Preferred stock
- C. Equity
- D. Asian options

Question 79

Which of the following should be priced the same as a callable bond on Company XYZ?

- A. A convertible bond on Company XYZ
- B. A straight bond plus a put option, both on Company XYZ
- C. A straight bond minus a call option, both on Company XYZ
- D. A straight bond on Company XYZ

Question 80

When a corporation borrows money, the creditors have entered into an option on the value of the firm. What does the exercise price of this option represent?

- A. The value of the assets of the firm
- B. The value of the cash position of the firm
- C. The required payment to the creditors
- D. The announced dividend payments to the shareholders

Question 81

What type of option has a payoff that depends, in part, on the minimum or maximum price of the underlying asset over the life of the option?

- A. An American option
- B. A lookback option
- C. An Asian option
- D. A binary option

Question 82

Which of the following describes the time value of an at-the-money put option before expiration?

- A. Equal to zero
- B. Negative
- C. Positive
- D. Equal to the stock price minus the exercise price

Question 83

The price of a call option is NOT positively correlated with which of the following factors?

- A. The stock price
- B. The time to expiration
- C. The stock volatility
- D. The exercise price

Question 84

Which of the following is TRUE of an American call option buyer on a non-dividend paying stock?

- A. The buyer will always exercise the call as soon as it is in the money.
- B. The buyer will only exercise the call when the stock price exceeds the previous high.
- C. The buyer will never exercise the call early.
- D. The buyer will buy an offsetting put whenever the stock price drops below the strike price.

Question 85

Which of the following represents an unobservable input to the Black-Scholes Option Pricing Model?

- A. The price of the underlying security
- B. The risk free rate of interest
- C. The time to expiration
- D. The variance of returns of the underlying asset return

Question 86

How is delta defined?

- A. A change in the value of an option for a dollar change in the price of the underlying asset.
- B. A change in the value of the underlying asset for a dollar change in the call price.
- C. A percentage change in the value of an option for a one percent change in the value of the underlying asset.
- D. A change in the volatility of the underlying stock price.

Question 87

How does the hedge ratio for a call option compare to the hedge ratio for a put option?

- A. Negative for the call and positive for the put
- B. Negative for the call and negative for the put
- C. Positive for the call and negative for the put
- D. Positive for the call and positive for the put

Question 88

The elasticity of a call option will have what value or range of values?

- A. The elasticity will be greater than one.
- B. The elasticity will be smaller than one.
- C. The elasticity will be negative.
- D. The elasticity will be infinite.

Question 89

Which of the following describes the sensitivity of the delta to changes in the stock price?

- A. Elasticity
- B. Gamma
- C. Volatility risk
- D. Hedge ratio

Question 90

Which party provides the guarantee that a futures contract will be fulfilled?

- A. The seller
- B. The broker
- C. The clearinghouse
- D. The government

Question 91

How is the open interest on silver futures at a particular time defined?

- A. The number of silver futures contracts traded during the day
- B. The number of outstanding silver futures contracts for delivery within the next month
- C. The number of silver futures contracts traded the previous day
- D. The number of all silver futures outstanding contracts

Question 92

Which of the following describes margin on a futures contract?

- A. The amount of the money borrowed from the broker when you buy the contract
- B. The maximum percentage that the price of the contract can change before it is marked to market
- C. The maximum percentage that the price of the underlying asset can change before it is marked to market
- D. A good-faith deposit made at the time of the contract's purchase or sale

Question 93

Which one of the following statements about basis is FALSE?

- A. The basis is the difference between the futures price and the spot price.
- B. Basis risk is borne by the hedger.
- C. A short hedger suffers losses when the basis decreases.
- D. The basis increases when the futures price increases by more than the spot price.

Question 94

Which of the following relationships depicts the cost of carry relationship with futures?

- A. $F_0 = S_0 (1 - r_f + d)^T$
- B. $S_0 = F_0 (1 - r_f + d)^T$
- C. $F_0 = S_0 (1 + r_f - d)^T$
- D. $F_0 = d (S_0 - 1 - d)^T$

Question 95

Which of the following describes the expectations hypothesis of futures pricing?

- A. The futures price is equal to the expected value of the future spot price of the asset.
- B. The futures price is greater than the expected value of the future spot price of the asset.
- C. The futures price is less than the expected value of the future spot price of the asset.
- D. The futures price is either less than or greater than the expected value of the future spot price of the asset, but never equal to.

Question 96

Which of the following depicts a futures price that is greater than the expected future spot price?

- A. Contango
- B. Normal backwardation
- C. Speculation
- D. Collateral yield

Question 97

Suppose that the risk-free rates in the United States and in the United Kingdom are 5% and 4%, respectively. The spot exchange rate between the dollar and the pound is \$1.80/BP. What should the futures price of the pound for a one-year contract be to prevent arbitrage opportunities, ignoring transactions costs?

- A. \$1.62/BP
- B. \$1.72/BP
- C. \$1.82/BP
- D. \$1.92/BP

Question 98

How would you exploit a stock index futures contract that is overpriced?

- A. Selling both the stock index futures and the stocks in the index
- B. Selling the stock index futures and simultaneously buying the stocks in the index
- C. Buying both the stock index futures and the stocks in the index
- D. Buying the stock index futures and selling the stocks in the index

Question 99

A hedge fund that makes an outright bet on the performance of a particular investment sector is employing what type of strategy?

- A. Relative value arbitrage
- B. Directional
- C. Market neutral
- D. Convergence arbitrage

Question 100

Which of the following is TRUE about credit risk in the swap market?

- A. It is often larger than the notional principal.
- B. It is limited to the difference between the values of the fixed rate and floating rate obligations.
- C. It is equal to the total value of the payments that the floating rate payer was obligated to make.
- D. It is trivial, that is, near zero.

CAIA Prerequisite Diagnostic Review and Answer Key Form A

Question Number	Answer	Text Reference	Study Guide Reference
1	B	Page 37	Topic 1, Chapter 2, LO1
2	B	Pages 34-36	Topic 1, Chapter 2, LO2
3	D	Pages 38-39	Topic 1, Chapter 2, LO3
4	D	Pages 45-46	Topic 1, Chapter 2, LO4
5	A	Pages 45-46	Topic 1, Chapter 2, LO4
6	D	Page 59	Topic 1, Chapter 3, LO1
7	B	Pages 64-66	Topic 1, Chapter 3, LO2
8	C	Pages 79-80	Topic 1, Chapter 3, LO3
9	C	Pages 79-80	Topic 1, Chapter 3, LO3
10	A	Pages 81-83	Topic 1, Chapter 3, LO4
11	D	Page 81	Topic 1, Chapter 3, LO4
12	B	Page 96	Topic 1, Chapter 4, LO1
13	C	Pages 97-99	Topic 1, Chapter 4, LO2
14	D	Page 106	Topic 1, Chapter 4, LO4
15	C	Page 458	Topic 2, Chapter 14, LO1
16	A	Pages 459-460	Topic 2, Chapter 14, LO2
17	B	Pages 461-462	Topic 2, Chapter 14, LO 2
18	A	Page 462	Topic 2, Chapter 14, LO2
19	A	Page 461	Topic 2, Chapter14, LO 3
20	B	Pages 464-468	Topic 2, Chapter 14, LO 4
21	B	Pages 468-475	Topic 2, Chapter 14, LO 5
22	D	Pages 475-476	Topic 2, Chapter 14, LO 5
23	A	Pages 481-483	Topic 2, Chapter 14, LO 6
24	D	Pages 483-484	Topic 2, Chapter 14, LO 7
25	B	Pages 496-497	Topic 2, Chapter 15, LO 1
26	D	Pages 502-503	Topic 2, Chapter 15, LO 2
27	C	Pages 524-526	Topic 2, Chapter 16, LO 1
28	B	Pages 524-526	Topic 2, Chapter 16, LO 1
29	D	Pages 534-539	Topic 2, Chapter 16, LO 3
30	D	Pages 538-539	Topic 2, Chapter 16, LO 4
31	C	Pages 543-548	Topic 2, Chapter 16, LO 5
32	C	Pages 554-555	Topic 2, Chapter 16, LO 6
33	C	Pages 608-611	Topic 3, Chapter 18, LO 2
34	A	Pages 614-615	Topic 3, Chapter 18, LO 2
35	C	Pages 616-621	Topic 3, Chapter 18, LO 2
36	C	Page 621	Topic 3, Chapter 18, LO 3
37	D	Pages 124-127	Topic 4, Chapter 5, LO 1
38	B	Pages 128-130	Topic 4, Chapter 5, LO 2
39	D	Pages 134-135	Topic 4, Chapter 5, LO 3

40	C	Pages 139-140	Topic 4, Chapter 5, LO 5
41	C	Pages 136-138	Topic 4, Chapter 5, LO 4
42	B	Pages 140-143	Topic 4, Chapter 5, LO 6
43	A	Pages 150-151	Topic 4, Chapter 5, LO 8
44	D	Pages 166-172	Topic 4, Chapter 6, LO 1
45	B	Pages 170-171	Topic 4, Chapter 6, LO 3
46	B	Pages 176-180	Topic 4, Chapter 6, LO 4
47	D	Pages 208-216	Topic 4, Chapter 7, LO 2
48	A	Pages 226-228	Topic 4, Chapter 7, LO 4
49	C	Pages 302-305	Topic 4, Chapter 8, LO 1
50	D	Pages 308-309	Topic 4, Chapter 8, LO 2
51	C	Pages 302-303	Topic 4, Chapter 8, LO 3
52	D	Pages 358-361	Topic 5, Chapter 11, LO 1
53	A	Pages 362-363	Topic 5, Chapter 11, LO 3
54	A	Pages 361-362	Topic 5, Chapter 11, LO 3
55	D	Page 370	Topic 5, Chapter 11, LO 6
56	D	Pages 373-377	Topic 5, Chapter 11, LO 7
57	C	Pages 381-386	Topic 5, Chapter 11, LO 8
58	A	Page 396	Topic 5, Chapter 12, LO 1
59	B	Page 397	Topic 5, Chapter 12, LO 2
60	A	Pages 398-399	Topic 5, Chapter 12, LO 3
61	D	Pages 407-408	Topic 5, Chapter 12, LO 5
62	D	Pages 851-853	Topic 6, Chapter 24, LO 1
63	D	Pages 851-853	Topic 6, Chapter 24, LO 1
64	C	Pages 853-856	Topic 6, Chapter 24, LO 2
65	A	Pages 853-856	Topic 6, Chapter 24, LO 2
66	A	Pages 853-856	Topic 6, Chapter 24, LO 2
67	B	Pages 853-856	Topic 6, Chapter 24, LO 2
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69	A	Pages 898-902	Topic 6, Chapter 25, LO 1
70	B	Pages 905-908	Topic 6, Chapter 26, LO 3
71	B	Pages 692-698	Topic 7, Chapter 20, LO 1
72	A	Pages 692-698	Topic 7, Chapter 20, LO 1
73	A	Pages 692-698	Topic 7, Chapter 20, LO 1
74	C	Pages 703-711	Topic 7, Chapter 20, LO 2
75	D	Pages 703-711	Topic 7, Chapter 20, LO 2
76	A	Pages 703-711	Topic 7, Chapter 20, LO 2
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78	C	Pages 714-720	Topic 7, Chapter 20, LO 4
79	C	Pages 714-720	Topic 7, Chapter 20, LO 4
80	C	Pages 714-720	Topic 7, Chapter 20, LO 4
81	B	Pages 721-724	Topic 7, Chapter 20, LO 5
82	C	Pages 737-740	Topic 7, Chapter 21, LO 1
83	D	Pages 737-740	Topic 7, Chapter 21, LO 1
84	C	Pages 740-744	Topic 7, Chapter 21, LO 2

85	D	Page 751	Topic 7, Chapter 21, LO 4
86	A	Pages 760-764	Topic 7, Chapter 21, LO 7
87	C	Pages 760-764	Topic 7, Chapter 21, LO 7
88	A	Pages 760-764	Topic 7, Chapter 21, LO 7
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91	D	Page 791	Topic 8, Chapter 22, LO 1
92	D	Page 792	Topic 8, Chapter 22, LO 1
93	C	Page 798	Topic 8, Chapter 22, LO 3
94	C	Pages 799-800	Topic 8, Chapter 22, LO 4
95	A	Pages 805-806	Topic 8, Chapter 22, LO 5
96	A	Page 806	Topic 8, Chapter 22, LO 5
97	C	Pages 814-817	Topic 8, Chapter 23, LO 1
98	B	Pages 821-824	Topic 8, Chapter 23, LO 3
99	B	Pages 831-832	Topic 8, Chapter 23, LO 7
100	B	Page 837	Topic 8, Chapter 23, LO 8