45 DERIVATIVE MARKETS AND INSTRUMENTS

1. Which of the following statements about forward contracts is least accurate?
   (A) A forward contract can be exercised at any time.
   (B) The long promises to purchase the asset.
   (C) Both parties to a forward contract have potential default risk.

2. A European call option on a stock has an exercise price of 42. On the expiration date, the stock price is 40. The value of the option at expiration is:
   (A) positive.
   (B) negative.
   (C) zero.

3. An American option is:
   (A) exercisable at any time up to its expiration date.
   (B) an option on a U.S. stock or bond.
   (C) Exercised only at expiration.

4. A call option has a strike price of $35 and the stock price is $47 at expiration. What is the expiration day value of the call option?
   (A) $35.
   (B) $0.
   (C) $12.

5. Standardized futures contracts are an aid to increased market liquidity because:
   (A) standardization results in less trading activity.
   (B) standardization of the futures contract stabilizes the market price of the underlying commodity.
   (C) uniformity of the contract terms broadens the market for the futures by appealing to a greater number of traders.

6. Which of the following is NOT an over-the-counter (OTC) derivative?
   (A) A bond option.
   (B) A forward contract.
   (C) A futures contract.

7. A put option has an exercise price of \$80, and the stock price is \$75 at expiration. The expiration day value of the put option is:
   (A) \$0.
   (B) \$5.
   (C) \$80.

8. Compared to a forward contract, a futures contract will:
   (A) be more liquid.
   (B) have a larger initial value.
   (C) involve more counterparty risk.

9. Which of the following relationships between arbitrage and market efficiency is least accurate?
   (A) The concept of rationally priced financial instruments preventing arbitrage opportunities is the basis behind the no-arbitrage principle.
   (B) Market efficiency refers to the low cost of trading derivatives because of the lower expense to traders.
   (C) Investors acting on arbitrage opportunities help keep markets efficient.

10. Mosaks, Inc., has a put option with an exercise price of \$105. If Mosaks stock price is \$115 at expiration, the value of the put option is:
    (A) \$0.
    (B) \$10.
    (C) \$105.

11. Which of the following definitions involving derivatives is least accurate?
    (A) An option writer is the seller of an option.
    (B) A call option gives the owner the right to sell the underlying good at a specific price for a specified time period.
    (C) An arbitrage opportunity is the chance to make a riskless profit with no investment.

12. The clearinghouse, in U.S. futures markets is least likely to:
    (A) choose which assets will have futures contracts.
    (B) guarantee performance of futures contract obligations.
    (C) act as a counterparty in futures contracts.

13. Which of the following statements regarding call options is most accurate? The:
    (A) breakeven point for the buyer is the strike price plus the option premium.
    (B) call holder will exercise (at expiration) whenever the strike price exceeds the stock price.
    (C) breakeven point for the seller is the strike price minus the option premium.

14. On the expiration date of a European put option, if the spot price of the underlying asset is less than the exercise price, the value of the option is:
    (A) Positive.
    (B) Zero.
    (C) negative.

15. A European option can be exercised by:
    (A) its owner, anytime during the term of the contract.
    (B) its owner, only at the expiration of the contract.
    (C) either party, at contract expiration.

16. Which of the following statements about futures markets is most accurate?
    (A) Hedgers accept market risk in exchange for expected profits.
    (B) The futures exchange establishes a maximum daily price fluctuation for each contract. The role of the clearinghouse is to take an active position in the market to maintain
    (C) A fair and orderly market by providing liquidity when the normal flow of orders is not adequate.

17. Which of the following statements about arbitrage opportunities is most accurate?
    (A) Arbitrage is referred to as the law of one price.
    (B) Engaging in arbitrage requires a large amount of capital.
    (C) The market prices of two assets or portfolios that have the same future payoffs cannot differ for protracted periods.

18. Which of the following statements about futures margin is least accurate?
    (A) The initial margin is set by the clearing house based on the volatility of the price of the underlying asset.
    (B) If the balance of the margin account exceeds the initial margin requirement, the trader can remove the excess funds from the account.
    (C) If the margin account balance falls below the maintenance margin level, the account balance must be brought back up to the maintenance level.

19. Which of the following is a difference between futures and forward contracts? Futures contracts are:
    (A) Standardized.
    (B) Over-the-counter instruments.
    (C) Larger than forward contracts.

20. Sally Ferguson, CFA, is a hedge fund manager. Ferguson utilizes both futures and forward contracts in the fund she manages. Ferguson makes the following statements about futures and forward contracts:

    Statement 1: A futures contract is an exchange traded instrument with standardized features.

    Statement 2: Forward contracts are marked to market on a daily basis to reduce credit risk to both counterparties.

    Are Ferguson's statements accurate?

    (A) Only one of these statements is accurate.

    (B) Both of these statements are accurate.

    (C) Neither of these statements is accurate.

21. In futures markets, the primary role of the clearinghouse is to:

    (A) act as guarantor to both sides of a futures trade.

    (B) prevent arbitrage and enforce federal regulations.

    (C) reduce transaction costs by making contract prices public.

22. Which of the following is the best interpretation of the no-arbitrage principle?

    (A) There is no free money.

    (B) There is no way you can find an opportunity to make a profit.

    (C) The information flow is quick in the financial market.

23. A derivative is defined as a security that has a value:

    (A) Based on another security, commodity, or index.

    (B) Stated in a contract between two counterparties.

    (C) Established outside an organized exchange.

24. Which of the following is least likely one of the conditions that must be met for a trade to be considered an arbitrage?

    (A) There is no risk.

    (B) There are no commissions.

    (C) There is no initial investment.

25. Which of the following statements regarding forwards and futures contracts is most accurate?

    (A) All futures contracts are cash settled.

    (B) Entering a futures contract does not require a cash flow.

    (C) Forward contracts on commodities may be deliverable or cash settled.

26. A financial instrument with a payoff that depends on a specified event occurring is most accurately described as:
    (A) a contingent claim.
    (B) a default swap.
    (C) an option.

27. The party to a forward contract that is obligated to purchase the asset is called the:
    (A) long.
    (B) short.
    (C) receiver.

28. The value of a European put option at expiration is most likely to be increased by:
    (A) a higher exercise price.
    (B) a lower risk-free interest rate.
    (C) higher volatility of the underlying asset price.

29. Which of the following is most likely a common criticism of derivatives markets?
    (A) Excessive leverage.
    (B) Illiquidity.
    (C) High cost to establish a position.

30. An agreement that gives the holder the right, but not the obligation, to sell an asset at a specified price on a specific future date is a:
    (A) swap.
    (B) call option.
    (C) put option.

31. Which of the following is most likely an exchange-traded derivative?
    (A) Currency forward contract.
    (B) Bond option.
    (C) Equity index futures contract.

32. An investor buys a call option that has an option premium of $5 and an exercise price of $22.50. The current market price of the stock is $25.75. At expiration, the value of the stock is $23.00. The net profit/loss of the call position is closest to:
    (A) -$4.50.
    (B) $4.50.
    (C) -$5.00.

33. At expiration, the value of a call option is the greater of zero or the:
    (A) Underlying asset price minus the exercise price.
    (B) Exercise price minus the exercise value.
    (C) Underlying asset price minus the exercise value.

34. Which of the following statements about futures and the clearinghouse is least accurate? The clearinghouse:
    (A) guarantees that trader in the futures market will honor their obligations.
    (B) requires the daily settlement of all margin accounts.
    (C) has defaulted on one half of one percent of futures trades.

35. Over-the-counter derivatives:
    (A) have good liquidity in the over-the-counter (OTC) market.
    (B) are customized contracts.
    (C) are backed by the OTC Clearinghouse.

36. At expiration, the value of a European call option is:
    (A) equal to its intrinsic value.
    (B) equal to the asset price minus the present value of the exercise price.
    (C) less than that of an otherwise identical American call option.

37. In a credit default swap (CDS), the buyer of credit protection:
    (A) makes a series of payments to a credit protection seller.
    (B) exchanges the return on a bond for a fixed or floating rate return.
    (C) issues a security that is paid using the cash flows from an underlying bond.

38. A futures investor receives a margin call. If the investor wishes to maintain her futures position, she must make a deposit that restores her account to the:
    (A) maintenance margin.
    (B) daily margin.
    (C) initial margin.

39. In a plain vanilla interest rate swap:
    (A) one party pays a floating rate and the other pays a fixed rate, both based on the notional amount.
    (B) payments equal to the notional principal amount are exchanged at the initiation of the swap.
    (C) each party pays a fixed rate of interest on a notional amount.

40. A financial instrument that has payoffs based on the price of an underlying physical or financial asset is a(n):
    (A) derivative security.
    (B) option.
    (C) future.

41. A similarity of margin accounts for both equities and futures is that for both:
    (A) additional payment is required if margin falls below the maintenance margin.
    (B) interest is charged on the margin loan balance.
    (C) the value of the security is the collateral for the loan.

42. A call option has an exercise price of $120, and the stock price is $105 at expiration. The expiration day value of the call option is:
    (A) $0.
    (B) $15.
    (C) $105.

43. The derivative security that is least likely to require or provide cash flows over its life is a:
    (A) swap.
    (B) future.
    (C) forward.

44. A put option has an exercise price of $65, and the stock price is $39 at expiration. The expiration day value of the put option is:
    (A) $0.
    (B) $26.
    (C) $65.

45. Which of the following statements regarding a forward commitment is NOT correct? A forward commitment:
    (A) is not legally binding.
    (B) is a contractual promise.
    (C) can involve a stock index.

46. Credit derivatives are least accurately characterized as:
    (A) insurance.
    (B) contingent claims.
    (C) forward commitments.

47. Open interest in a futures market is most accurately described as the total number of:
    (A) buyers and sellers currently holding outstanding positions.
    (B) contracts that change hands in a given period.
    (C) contracts outstanding.

48. Which of the following represents a long position in an option?
    (A) Writing a put option.
    (B) Writing a call option.
    (C) Buying a put option.

49. Which of the following statements regarding exchange-traded derivatives is NOT correct? Exchange-traded derivatives:
    (A) are standardized contracts.
    (B) often trade in a physical location.
    (C) are illiquid.

50. The process of arbitrage does all of the following EXCEPT:
    (A) produce riskiess profits.
    (B) promote pricing efficiency.
    (C) insure that risk-adjusted expected returns are equal.

51. Which of the following statements about arbitrage is NOT correct
    (A) Arbitrage can cause markets to be less efficient.
    (B) No investment is required when engaging in arbitrage.
    (C) If an arbitrage opportunity exists, making a profit without risk is possible.

52. The settlement price for a futures contract is:
    (A) the price of the asset in the future for all trades made in the same day.
    (B) the price of the last trade of a futures contract at the end of the trading day.
    (C) an average of the trade prices during the 'closing period'.

53. Jimmy Casteel pays a premium of $1.60 to buy a put option with an exercise price of $145. If the stock price at expiration is $128, Casteel's profit or loss from the options position is:
    (A) $1.60.
    (B) $18.40.
    (C) $15.40.

54. Ed Verdi has a long position in a European put option on a stock. At expiration, the stock price is greater than the exercise price. The value of the put option to Verdi on its expiration date is:
    (A) negative.
    (B) zero.
    (C) positive.

55. A standardized and exchange-traded agreement to buy or sell a particular asset on a specific date is best described as a:
   (A) forward contract.
   (B) futures contract.
   (C) swap.

56. Which of the following statements about futures is least accurate?
   (A) Futures contracts have a maximum daily allowable price limit.
   (B) The exchange-mandated uniformity of futures contracts reduces their liquidity.
   (C) The futures exchange specifies the minimum price fluctuation of a futures contract.

57. Which of the following statements about futures and forwards is most accurate? Futures:
   (A) require that traders post margin in order to trade, but forwards typically require no cash transaction until the delivery date.
   (B) are individualized contracts, but forwards are standardized.
   (C) are subject to default risk, but forwards are not.

58. Which of the following regarding a plain vanilla interest rate swap is most accurate?
   (A) The notional principal is returned at the end of the swap.
   (B) Only the net interest payments are made.
   (C) The notional principal is swapped.

59. Typically, forward commitments are made with respect to all the following EXCEPT.
   (A) bonds.
   (B) equities.
   (C) inflation.

60. In the trading of futures contracts, the role of the clearinghouse is to:
   (A) guarantee that all obligations by traders will be honored.
   (B) stabilize the market price fluctuations of the underlying commodity.
   (C) maintain private insurance that can be used to provide funds if a trader defaults.

61. Some forward contracts are termed cash settlement contracts. This means:
   (A) at settlement, the long purchases the asset from the short for cash.
   (B) at contract expiration, the long can buy the asset from the short or pay the difference between the market price of the asset and the contract price.
   (C) either the long or the short in the forward contract will make a cash payment at contract expiration and the asset is not delivered.

62. Al Steadman receives a premium of $3.80 for writing a put option with an exercise price of $64. If the stock price at expiration is $84, Steadman's profit or loss from the options position is:
(A) $23.80.
(B) $3.80.
(C) $16.20.

63. Two Level I CFA candidates are discussing futures and make the following statements:
Candidate 1: Futures are traded using standardized contracts. They require margin and incur interest charges on the margin loan.
Candidate 2: If the margin balance falls below the maintenance margin amount due to a change in the spot price for the underlying assets, the investor must add funds to bring the margin back up to the initial margin requirement.
Are the candidates' statements correct or incorrect?
(A) Only one of the statements is correct.
(B) Neither statement is correct.
(C) Both statements are correct.

64. Regarding buyers and sellers of put and call options, which of the following statements concerning the resulting option position is most accurate? The buyer of a:
(A) call option is taking a long position while the seller of a put is taking a short position.
(B) call option is taking a long position and the buyer of a put option is taking a short position.
(C) put option is taking a short position and the seller of a call option is taking a short position.

65. A legally binding promise to buy 140 oz. of gold two months from now at a price agreed upon today is most likely a:
(A) hedge.
(B) forward commitment.
(C) futures contract.

66. Consider a call option with an exercise price of $32. If the stock price at expiration is $41, the value of the call option is:
(A) $0.
(B) $9.
(C) $41.

67. Financial derivatives contribute to market completeness by allowing traders to do all of the following EXCEPT:
    (A) narrow the amount of trading opportunities to a more manageable range.
    (B) increase market efficiency through the use of arbitrage.
    (C) engage in high risk speculation.

68. Which of the following is least likely characteristic of futures contracts? Futures contracts:
    (A) are backed by the clearinghouse.
    (B) are traded in an active secondary market.
    (C) require weekly settlement of gains and losses.

69. One reason that criticism has been leveled at derivatives and derivatives markets is that:
    (A) derivatives expire.
    (B) derivatives have too much default risk.
    (C) they are complex instruments and sometimes hard to understand.

70. If the margin balance in a futures account with a long position goes below the maintenance margin amount:
    (A) a deposit is required to return the account margin to the initial margin level.
    (B) a margin deposit equal to the maintenance margin is required within two business days.
    (C) a deposit is required which will bring the account to the maintenance margin level.

71. All of the following are benefits of derivatives markets EXCEPT:
    (A) derivatives allow the shifting of risk to those who can most efficiently bear it.
    (B) transactions costs are usually smaller in derivatives markets, than for similar trades in the underlying asset.
    (C) derivatives markets help keep interest rates down.

72. Which of the following statements regarding plain-vanilla interest rate swaps is least accurate?
    (A) In a swap contract, the counterparties usually swap the notional principal.
    (B) The settlement dates are when the interest payments are to be made.
    (C) The time frame covered by the swap is called the tenor of the swap.

73. MBT Corporation recently announced a 15% increase in earnings per share (EPS) over the previous period. The consensus expectation of financial analysts had been an increase in EPS of 10%. After the earnings announcement the value of MBT common

stock increased each day for the next five trading days, as analysts and investors gradually reacted to the better than expected news. This gradual change in the value of the stock is an example of:

(A) efficient markets.

(B) inefficient markets.

(C) speculation.

74. The short in a forward contract:

(A) is obligated to deliver the asset upon expiration of the contract.

(B) is obligated to deliver the asset anytime prior to expiration of the contract.

(C) has the right to deliver the asset upon expiration of the contract.

75. What is the primary difference between an American and a European option?

(A) An American option can be exercised at any time on or before its expiration date.

(B) A European option can only be traded on non-U.S. markets.

(C) American and European options may not be written on the same underlying asset.

76. The process that ensures that two securities positions with identical future payoffs, regardless of future events, will have the same price is:

(A) arbitrage.

(B) exchange parity.

(C) clearinghouse regulation.

77. An analyst determines that a portfolio with a 35% weight in Investment P and a 65% weight in Investment Q will have a standard deviation of returns equal to zero.

- Investment P has an expected return of 8%.
- Investment Q has a standard deviation of returns of 7.1% and a covariance with the market of 0.0029.
- The risk-free rate is 5% and the market risk premium is 7%.

If no arbitrage opportunities are available, the expected rate of return on the combined portfolio is closest to:

(A) 5%.

(B) 6%.

(C) 7%.

78. Which of the following statements about options is most accurate?

(A) The writer of a put option has the obligation to sell the asset to the holder of the put option.

(B) The holder of a call option has the obligation to sell to the option writer if the stock's price rises above the strike price.

(C) The holder of a put option has the right to sell to the writer of the option.

79. Which of the following is an example of an arbitrage opportunity?
    (A) A portfolio of two securities that will produce a certain return that is greater than the risk-free rate of interest.
    (B) A put option on a share of stock has the same price as a call option on an identical share.
    (C) A stock with the same price as another has a higher rate of return.

80. Any rational quoted price for a financial instrument should:
    (A) provide an opportunity for investors to make a profit.
    (B) provide no opportunity for arbitrage.
    (C) be low enough for most investors to afford.