

## CHAPTER 45

# DERIVATIVE MARKETS AND INSTRUMENTS

1. (A) A forward contract can be exercised at any time.

**Explanation**

Forward contracts typically require a purchase/sale of the asset on the expiration/delivery date specified in the contract. The other statements are true.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

2. (C) zero.

**Explanation**

For a call option, the value at expiration is zero if the price of the underlying is less than or equal to the exercise price. The holder will allow the option to expire unexercised.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

3. (A) exercisable at any time up to its expiration date.

**Explanation**

There is no geographical significance given to American (style) options. It simply refers to the fact that they can be exercised at any time, up to and including the expiration date. European-style options can be exercised only on their expiration dates.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

4. (C) \$12.

**Explanation**

A call option has an expiration day value of  $\text{MAX}(0, S - X)$ . Here, X is \$35 and S is \$47. (Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

5. (C) **uniformity of the contract terms broadens the market for the futures by appealing to a greater number of traders.**

**Explanation**

Although a forward may have value to someone other than the original counterparties, the non-standardized terms limit the level of interest, hence its marketability and liquidity. The standardized terms of a future give it far more flexibility to traders, giving rise to a strong secondary market and greater liquidity.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

6. (C) **A futures contract.**

**Explanation**

Futures contracts are exchange-traded; forwards and most bond options are OTC derivatives.

(Study Session 15, Module 45.1, LOS 45.a)

**Related Material**

[SchweserNotes - Book 4](#)

7. (B) **\$5.**

**Explanation**

A put option has an expiration day value of  $\text{Max}(0, X - S)$ . Here,  $X$  is \$80 and  $S$  is \$75. (Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

8. (A) **be more liquid.**

**Explanation**

Futures contracts are standardized, exchange traded instruments and hence are more liquid than forward contracts. Because a clearinghouse is the counterparty to all futures contracts, there is no counterparty risk. Both forward and futures contracts typically have a value of zero at initiation to both the long and the short party.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

9. (B) **Market efficiency refers to the low cost of trading derivatives because of the lower expense to traders.**

**Explanation**

Market efficiency is achieved when all relevant information is reflected in asset prices, and does not refer to the cost of trading. One necessary criterion for market efficiency is rapid adjustment of market values to new information. Arbitrage, trading on a price difference between identical assets, causes changes in demand for and supply of the assets that tends to eliminate the pricing difference.

(Study Session 15, Module 45.2, LOS 45.0)

**Related Material**

[SchweserNotes - Book 4](#)

10. (A) **\$ 0.**

**Explanation**

The put has a value of \$0 because it will not be exercised. Put value is  $\text{Max}(0, X - S)$ .

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

11. (B) **A call option gives the owner the right to sell the underlying good at a specific price for a specified time period.**

**Explanation**

A call option gives the owner the right to buy the underlying good at a specific price for a specified time period.

(Study Session 15, Module 45.1, LOS 45.a)

**Related Material**

[SchweserNotes - Book 4](#)

12. (A) **choose which assets will have futures contracts.**

**Explanation**

The exchange decides which contracts will be traded and their specifications. The clearinghouse acts as the counterparty to every contract and guarantees performance.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

13. (A) breakeven point for the buyer is the strike price plus the option premium.

**Explanation**

The breakeven for the buyer and the seller is the strike price plus the premium. The call holder will exercise if the market price exceeds the strike price.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

14. (A) Positive.

**Explanation**

Put options are in the money (have positive value) at expiration if the spot price of the underlying asset is less than the exercise price, because the put option holder has the right to sell the asset for the higher exercise price. The value of an option cannot be negative; at expiration its value is the greater of zero or its intrinsic value.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

15. (B) its owner, only at the expiration of the contract.

**Explanation**

A European option can be exercised by its owner only at contract expiration.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

16. (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

**Explanation**

A futures exchange sets the maximum price fluctuation, or limit, for the contracts that trade on that exchange. Speculators enter the futures market in pursuit of profit, accepting risk in the endeavor. Hedgers trade futures to reduce some preexisting risk exposure. The clearinghouse takes no active position in the market but interposes itself between both parties to every transaction. Thus, the clearinghouse guarantees that traders in the future market will honor their obligations.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

17. (A) **Arbitrage is referred to as the law of one price.**

**Explanation**

Arbitrage is often referred to as the law of one price. Because when exploiting an arbitrage opportunity an arbitrageur will often simultaneously sell the higher-priced asset and buy the lower-priced asset, no capital may be required. Price differences may persist when short sales are not possible or because the difference is not great enough to outweigh the transaction costs of exploiting it.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

18. (C) **If the margin account balance falls below the maintenance margin level, the account balance must be brought back up to the maintenance level.**

**Explanation**

If the margin account balance falls below the maintenance margin level, the account must be brought back up to the initial margin amount.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

19. (A) **Standardized.**

**Explanation**

As opposed to forward contracts, futures contracts are traded over an organized exchange and are standardized in size, maturity, quality of deliverable, etc.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

20. (A) **Only one of these statements is accurate.**

**Explanation**

Statement 1 is correct. A futures contract is a standardized instrument that is traded on an exchange, unlike a forward contract which is a customized transaction. Statement 2 is incorrect. A forward contract is not marked to market.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

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

Acting as the counterparty for all buyers and sellers is the primary role of the clearinghouse. By providing liquidity, the clearinghouse may also help lower transaction costs indirectly.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

**22. (A) There is no free money.****Explanation**

An arbitrage opportunity is the chance to make a riskless profit with no investment. In essence, finding an arbitrage opportunity is like finding free money. As you recall, in arbitrage, you observe two identical assets with different prices. Your immediate response should be to buy the cheaper one and sell the expensive one short. You can then deliver the cheap one to cover your short position. Once you take the initial arbitrage position, your arbitrage profit is locked in. The no-investment statement referenced in the text refers to the assumption that when you short the expensive asset, you will be given access to the cash created by the short sale. With this cash, you now have the money to buy the cheaper asset. The no-investment assumption means that the first person to observe a market pricing error will have the financial resources to correct the pricing error instantaneously all by themselves.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

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

A derivative is a security the value of which is derived from the value of some other underlying asset. Some derivatives trade on organized exchanges. The price at which a transaction will (or may) take place in the future is stated in a derivatives contract.

(Study Session 15, Module 45.1, LOS 45.a)

**Related Material**

[SchweserNotes - Book 4](#)

**24. (B) There are no commissions.**

**Explanation**

In order to be considered arbitrage there must be no risk in the trade.

It doesn't matter if commissions are paid as long as the amount of the price discrepancy is enough to offset the amount paid in commissions.

In order to be considered arbitrage there must be no initial investment of one's own capital. One must finance any cash outlay through borrowing.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

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

**Explanation**

Both forward contracts and futures contracts may be deliverable or cash settled. Entering a futures contract requires a margin deposit.

For Further Reference:

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

**26. (A) a contingent claim.**

**Explanation**

Contingent claims are contracts with payoffs that depend on a specified event occurring. Options and credit default swaps are examples of contingent claims, but neither of these terms describes all contingent claims.

For Further Reference:

(Study Session 15, Module 45.1, LOS 45.b)

CFA® Program Curriculum, Volume 5, page 149

**Related Material**

[SchweserNotes - Book 4](#)

**27. (A) long.**

**Explanation**

The long in a forward contract is obligated to buy the asset (in a deliverable contract). The term receiver is used with swaps.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

**28. (A) a higher exercise price.**

**Explanation**

The value of an option at expiration is the greater of zero or its exercise value. A higher exercise price increases the exercise value of a put option because it gives the holder the right to sell the underlying asset for a higher price. The risk-free interest rate and volatility of the underlying asset price only affect the time value of options, which is zero at expiration.

**For Further Reference:**

(Study Session 15, Module 45.2, LOS 45.d)

CFA® Program Curriculum, Volume 5, page 170

CFA® Program Curriculum, Volume 5, page 248

**Related Material**

[SchweserNotes - Book 4](#)

**29. (A) Excessive leverage.**

**Explanation**

Because derivatives positions often involve a high degree of leverage, some critics liken derivatives to gambling. Many derivatives are priced in such a way that establishing a position has zero cost. Exchange-traded derivatives such as futures contracts are highly liquid.

(Study Session 15, Module 45.2, LOS 45.e)

**Related Material**

[SchweserNotes - Book 4](#)

**30. (C) put option.**

**Explanation**

A put option gives the holder the right to sell an asset at a specified price on a specific future date. A call option gives the holder the right to buy an asset at a specified price on a specific future date. A swap is an obligation to both parties.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

**31. (C) Equity index futures contract.**

**Explanation**

Futures are exchange-traded derivatives. Forward contracts and swaps are over-the-counter derivatives. Bond options are traded almost entirely in the over-the-counter market.

(Study Session 15, Module 45.1, LOS 45.a)

**Related Material**

[SchweserNotes - Book 4](#)



32. (A) **-\$4.50.**

**Explanation**

The option is in-the-money by \$0.50 (\$23.00 - \$22.50). The investor paid \$5.00 for the call option, thus the net loss is -\$4.50 (\$0.50 - \$5.00).

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

33. (A) **Underlying asset price minus the exercise price.**

**Explanation**

The value of a call option at expiration is its exercise value, which is  $\text{Max}[0, S - X]$ .

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

34. (C) **has defaulted on one half of one percent of futures trades.**

**Explanation**

In the history of U.S. futures trading, the clearinghouse has never defaulted.

The clearinghouse guarantees that traders in the futures market will honor their obligations. The clearinghouse does this by splitting each trade once it is made and acting as the opposite side of each position. The clearinghouse acts as the buyer to every seller and the seller to every buyer. By doing this, the clearinghouse allows either side of the trade to reverse positions later without having to contact the other side of the initial trade. This allows traders to enter the market knowing that they will be able to reverse their position any time that they want. Traders are also freed from having to worry about the other side of the trade defaulting, since the other side of their trade is now the clearinghouse.

To safeguard the clearinghouse, the exchange requires traders to post margin and settle their accounts on a daily basis.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

35. (B) **are customized contracts.**

**Explanation**

OTC derivative contracts (securities) are customized and have poor liquidity. The contract is with a specific counterparty and there is default risk since there is no clearinghouse to guarantee performance.

(Study Session 15, Module 45.1, LOS 45.a)

**Related Material**

[SchweserNotes - Book 4](#)

36. (A) **equal to its intrinsic value.**

**Explanation**

The intrinsic value of a call, either European or American, at expiration is  $\text{Max}(0, S-X)$ , which is its intrinsic value. The asset price minus the present value of the exercise price can be negative, but options cannot have a negative value.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

37. (A) **makes a series of payments to a credit protection seller.**

**Explanation**

In a credit default swap (CDS), the buyer of credit protection makes a series of payments to a credit protection seller. The credit protection seller promises to make a fixed payment to the buyer if an underlying bond or loan experiences a credit event, such as a default. In a total return swap, the buyer of credit protection exchanges the return on a bond for a fixed or floating rate return. A security that is paid using the cash flows from an underlying bond is known as a credit-linked note.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

38. (C) **initial margin.**

**Explanation**

In futures trading, a margin call requires the investor to restore the account to the initial margin level or close the position.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

39. (A) **one party pays a floating rate and the other pays a fixed rate, both based on the notional amount.**

**Explanation**

A plain vanilla swap is a fixed-for-floating swap.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

**40. (A) derivative security.**

**Explanation**

Options and futures are examples of types of derivative securities.

(Study Session 15, Module 45.1, LOS 45.a)

**Related Material**

[SchweserNotes - Book 4](#)

**41. (A) additional payment is required if margin falls below the maintenance margin.**

**Explanation**

Both futures accounts and equity margin accounts have minimum margin requirements that, if violated, require the deposit of additional funds. There is no loan in a futures account; the margin deposit is a performance guarantee. The seller does not receive the margin deposit in futures trades. The seller must also deposit margin in order to open a position.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

**42. (A) \$0.**

**Explanation**

A call option has an expiration day value of  $\text{Max}(0, S - X)$ . Here,  $X$  is \$120 and  $S$  is \$105. Because the call option is out of the money at expiration, its value is zero.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

**43. (C) forward.**

**Explanation**

Forwards typically do not require payments or make payments over their life. Futures have cash flows from the mark to market, and swaps have cash flows equal to the net difference between the cash flows promised by each party to the swap.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

44. (B) \$26.

**Explanation**

A put option has an expiration day value of  $\text{Max}(0, X - S)$ . Here, X is \$65 and S is \$39.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

45. (A) is not legally binding.

**Explanation**

A forward commitment is a legally binding promise to perform some action in the future and can involve a stock index or portfolio.

**Related Material**

[SchweserNotes - Book 4](#)

46. (C) forward commitments.

**Explanation**

Credit derivatives are contingent claims and not forward commitments because their payoff depends on a future event taking place. Credit derivatives are essentially insurance against a credit event.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

47. (C) contracts outstanding.

**Explanation**

Open interest is the total number of contracts (long/short position pairs) outstanding. The number of contracts that change hands in a given period is volume, not open interest.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

48. (C) Buying a put option.

**Explanation**

A long position is always the buying position. Remember that the buyer of an option is said to have gone long the position, while the writer (seller) of the option is said to have gone short the position.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

49. (C) are illiquid.

**Explanation**

Derivatives that trade on exchanges have good liquidity in most cases. They have the other characteristics listed.

(Study Session 15, Module 45.1, LOS 45.a)

**Related Material**

[SchweserNotes - Book 4](#)

50. (C) insure that risk-adjusted expected returns are equal.

**Explanation**

Arbitrage does not insure that the risk-adjusted expected returns to two risky assets will be equal. Arbitrage is based on risk-free portfolios and promotes efficient pricing of assets. When an arbitrage opportunity is presented by a mispricing of assets, the increased supply of the 'overpriced' asset and the increased demand for the 'underpriced' asset by arbitrageurs, will move the prices toward equality and act to correct the mispricing.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

51. (A) Arbitrage can cause markets to be less efficient.

**Explanation**

Arbitrage is defined as the existence of riskless profit without investment and involves selling an asset and simultaneously buying the same asset for a lower price. Since the trades cancel each other, no investment is required. Because it is done simultaneously, a profit is guaranteed, making the transaction risk free. Arbitrage actually helps make markets more efficient because price discrepancies are immediately eradicated by the actions of arbitrageurs.

(Study Session 15, Module 45.2, LOS 45.e)

**Related Material**

[SchweserNotes - Book 4](#)

52. (C) an average of the trade prices during the 'closing period'.

**Explanation**

The margin adjustments are made based on the settlement price, which is calculated as the average trade price over a specific closing period at the end of the trading day. The length of the closing period is set by the exchange.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

53. (C) \$15.40.

**Explanation**

The put option will be exercised and has a value of  $\$145 - \$128 = \$17$  [ $\text{Max}(0, X - S)$ ]. Therefore, Casteel receives \$17 minus the \$1.60 paid to buy the option. The profit is \$15.40 (\$17 less \$1.60).

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

54. (B) zero.

**Explanation**

At expiration, the value to the holder (long position) of a put option on a stock is the greater of zero or the exercise price minus the stock price. If the stock price is greater than the exercise price, the value of a put option to the holder is zero and the holder will allow the option to expire unexercised.

**For Further Reference:**

(Study Session 15, Module 45.2, LOS 45.d)

CFA® Program Curriculum, Volume 5, page 170

**Related Material**

[SchweserNotes - Book 4](#)

55. (B) futures contract.

**Explanation**

Futures contracts are standardized forward contracts that trade on organized exchanges. Other types of forward contracts, as well as swaps, are custom instruments that are generally not exchange-traded.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

56. (B) The exchange-mandated uniformity of futures contracts reduces their liquidity.

**Explanation**

The exchange-mandated uniformity of futures contracts increases their liquidity.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

57. (A) **Require that traders post margin in order to trade, but forwards typically require no cash transaction until the delivery date.**

**Explanation**

Forwards are subject to default risk, but futures are not. Forwards are individualized contracts, but futures are standardized.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.b)

CFA® Program Curriculum, Volume 5, page 149

**Related Material**

[SchweserNotes - Book 4](#)

58. (B) **Only the net interest payments are made.**

**Explanation**

The plain vanilla interest rate swap involves trading fixed interest rate payments for floating rate payments. Swaps are a zero sum game, what one party gains the other party loses. In interest rate swaps, only the net interest rate payments actually take place because the notional principal swapped is the same for both counterparties and in the same currency units, there is no need to actually exchange the cash.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

59. (C) **inflation.**

**Explanation**

Forward commitments can be customized and could be written on some measure of inflation, but typically they are not. The volume of forward commitments, including forward contracts and futures contracts, on bonds, equities, and interest rates is in the many billions of dollars.

(Study Session 15, Module 45.1, LOS 45.b)

**Related Material**

[SchweserNotes - Book 4](#)

60. (A) **guarantee that all obligations by traders will be honored.**

**Explanation**

The clearinghouse does not originate trades, it acts as the opposite party to all trades. In other words, it is the buyer to every seller and the seller to every buyer. This action guarantees that all obligations under the terms of the contract will be fulfilled.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

61. (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.

**Explanation**

In a cash settlement forward contract there is a cash payment at settlement by either the long or the short depending on whether the market price of the asset is below or above the contract price at expiration. The underlying asset is not purchased or sold at settlement.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

62. (B) \$3.80.

**Explanation**

The put option will not be exercised because it is out-of-the-money,  $\text{Max}(0, X - 5)$ . Therefore, Steadman keeps the full amount of the premium, \$3.80.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

63. (A) Only one of the statements is correct.

**Explanation**

Candidate 1 is incorrect. In the futures markets, margin is a performance guarantee. It is money deposited by both the long and the short. There is no loan involved (contrasting with margin in the equity markets) and thus no interest charges. Candidate 2 is correct.

**For Further Reference:**

(Study Session 15, Module 45.1, LOS 45.c)

CFA® Program Curriculum, Volume 5, page 158

**Related Material**

[SchweserNotes - Book 4](#)

64. (A) call option is taking a long position while the seller of a put is taking a short position.

**Explanation**

The buyers of both puts and calls are taking long positions in the options contracts (but the buyer of a put is establishing a potentially short exposure to the underlying), while writers (sellers) of each are taking short positions in the options contracts.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)



**65. (B) forward commitment.**

**Explanation**

This is a forward commitment because the contract requires an action in the future. It is not necessarily a hedge of an existing risk. It is not necessarily a futures contract as it could be a forward contract as well.

(Study Session 15, Module 45.1, LOS 45.b)

**Related Material**

[SchweserNotes - Book 4](#)

**66. (B) \$9.**

**Explanation**

The call has a \$9 (\$41 - \$32) value at expiration, because the holder of the call can exercise his right to buy the stock at \$32 and then sell the stock on the open market for \$41. The intrinsic value of a call at expiration is  $\text{Max}(0, S - X)$ .

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

**67. (A) narrow the amount of trading opportunities to a more manageable range.**

**Explanation**

Financial derivatives increase the opportunities to either speculate or hedge on the value of underlying assets. This adds to market completeness by increasing the range of identifiable payoffs that can be used by traders to fulfill their needs. Financial derivatives such as market index futures can also be easier and cheaper than trading in a diversified portfolio, thereby adding to the opportunities available to traders.

(Study Session 15, Module 45.2, LOS 45.e)

**Related Material**

[SchweserNotes - Book 4](#)

**68. (C) Require weekly settlement of gains and losses.**

**Explanation**

Futures contracts require daily settlement of gains and losses. The other statements are accurate.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

69. (C) **they are complex instruments and sometimes hard to understand.**

**Explanation**

The fact that derivative securities are sometimes complex and often hard for non-financial commentators to understand has led to criticism of derivatives and derivative markets.

(Study Session 15, Module 45.2, LOS 45.e)

**Related Material**

[SchweserNotes - Book 4](#)

70. (A) **a deposit is required to return the account margin to the initial margin level.**

**Explanation**

Once account margin (based on the daily settlement price) falls below the maintenance margin level, it must be returned to the initial margin level, regardless of subsequent price changes.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

71. (C) **Derivatives markets help keep interest rates down.**

**Explanation**

The existence of derivatives markets does not affect the level of interest rates. The other statements are true.

(Study Session 15, Module 45.2, LOS 45.e)

**Related Material**

[SchweserNotes - Book 4](#)

72. (A) **In a swap contract, the counterparties usually swap the notional principal.**

**Explanation**

The notional principal is generally not swapped, as it is usually the same for both parties in the swap deal.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

73. (B) **Inefficient markets.**

**Explanation**

A critical element of efficient markets is that asset prices respond immediately to any new information that will affect their value. Large numbers of traders responding in similar fashion to the new information will create a temporary imbalance in supply and demand, and this will adjust asset market values.

(Study Session 15, Module 45.2, LOS 45.e)

**Related Material**

[SchweserNotes - Book 4](#)

74. (A) **Is obligated to deliver the asset upon expiration of the contract.**

**Explanation**

The short in a forward contract is obligated to deliver the asset (in a deliverable contract) on (or close to) the expiration date.

(Study Session 15, Module 45.1, LOS 45.c)

**Related Material**

[SchweserNotes - Book 4](#)

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

**Explanation**

A European option may be exercised only on its expiration date, while an American option can be exercised at any time on or before its expiration date.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

76. (A) **Arbitrage.**

**Explanation**

If two securities have identical payoffs regardless of events, the process of arbitrage will move prices toward equality. Arbitrageurs will buy the lower priced position and sell the higher priced position, for an immediate profit without any future liability.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

77. (A) **5%.**

**Explanation**

If the no-arbitrage condition is met, a riskless portfolio (a portfolio with zero standard deviation of returns) will yield the risk-free rate of return.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

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

**Explanation**

The holder of a put option has the right to sell to the writer of the option. The writer of the put option has the obligation to buy, and the holder of the call option has the right, but not the obligation to buy.

(Study Session 15, Module 45.2, LOS 45.d)

**Related Material**

[SchweserNotes - Book 4](#)

79. (A) A portfolio of two securities that will produce a certain return that is greater than the risk-free rate of interest.

**Explanation**

An arbitrage opportunity exists when a combination of two securities will produce a certain payoff in the future that produces a return that is greater than the risk-free rate of interest. Borrowing at the riskless rate to purchase the position will produce a certain future amount greater than the amount required to repay the loan.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

80. (B) Provide no opportunity for arbitrage.

**Explanation**

Since any observed pricing errors will be instantaneously corrected by the first person to observe them, any quoted price must be free of all known errors. This is the basis behind the text's no-arbitrage principle, which states that any rational price for a financial instrument must exclude arbitrage opportunities. The no-arbitrage opportunity assumption is the basic requirement for rational prices in the financial markets. This means that markets and prices are efficient. That is, all relevant information is impounded in the asset's price. With arbitrage and efficient markets, you can create the option and futures pricing models presented in the text.

(Study Session 15, Module 45.2, LOS 45.f)

**Related Material**

[SchweserNotes - Book 4](#)

