

## Chapter 3 How Securities Are Traded

### Multiple Choice Questions

1. A purchase of a new issue of stock takes place
  - A) in the secondary market.
  - B) in the primary market.
  - C) usually with the assistance of an investment banker.
  - D) A and B.
  - E) B and C.

Answer: E Difficulty: Easy

Rationale: Funds from the sale of new issues flow to the issuing corporation, making this a primary market transaction. Investment bankers usually assist by pricing the issue and finding buyers.

2. The following statements regarding the specialist are **true**:
  - A) Specialists maintain a book listing outstanding unexecuted limit orders.
  - B) Specialists earn income from commissions and spreads in stock prices.
  - C) Specialists stand ready to trade at quoted bid and ask prices.
  - D) Specialists cannot trade in their own accounts.
  - E) A, B, and C are all true.

Answer: E Difficulty: Moderate

Rationale: The specialists' functions are all of the items listed in A, B, and C. In addition, specialists trade in their own accounts.

3. Investment bankers
  - A) act as intermediaries between issuers of stocks and investors.
  - B) act as advisors to companies in helping them analyze their financial needs and find buyers for newly issued securities.
  - C) accept deposits from savers and lend them out to companies.
  - D) A and B.
  - E) A, B, and C.

Answer: D Difficulty: Moderate

Rationale: The role of the investment banker is to assist the firm in issuing new securities, both in advisory and marketing capacities. The investment banker does not have a role comparable to a commercial bank, as indicated in C.

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4. In a "best-efforts" basis
- A) the investment banker buys the stock from the company and resells the issue to the public.
  - B) the investment banker agrees to help the firm sell the stock at a favorable price.
  - C) the investment banker finds the best marketing arrangement for the investment banking firm.
  - D) B and C.
  - E) A and B.

Answer: B Difficulty: Moderate

Rationale: Under the "best-efforts" agreement, the investment banker agrees to make the best effort to sell the issue at the best possible price, nothing more.

5. The secondary market consists of
- A) transactions on the AMEX.
  - B) transactions in the OTC market.
  - C) transactions through the investment banker.
  - D) A and B.
  - E) A, B, and C.

Answer: D Difficulty: Moderate

Rationale: The secondary market consists of transactions on the organized exchanges and in the OTC market. The investment banker is involved in the placement of new issues in the primary market.

6. The use of the Internet to trade and underwrite securities
- A) is illegal under SEC regulations.
  - B) is regulated by the New York Stock Exchange.
  - C) is expected to grow quickly.
  - D) increases underwriting costs for a new security issue.
  - E) is regulated by the National Association of Securities Dealers.

Answer: C Difficulty: Moderate

Rationale: The SEC permits trading and underwriting of securities over the Internet, but has required firms participating in this activity to take steps to safeguard investment funds. This form of underwriting is expected to grow quickly due to its lower cost. It is not regulated by either the NYSE or the NASD.

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7. Initial margin requirements are determined by
- A) the Securities and Exchange Commission.
  - B) the Federal Reserve System.
  - C) the New York Stock Exchange.
  - D) B and C.
  - E) A and B

Answer: B Difficulty: Moderate

Rationale: The Board of Governors of the Federal Reserve System determines initial margin requirements. The New York Stock Exchange determines maintenance margin requirements on NYSE-listed stocks; however, brokers usually set maintenance margin requirements above those established by the NYSE.

8. You purchased XYZ stock at \$50 per share. The stock is currently selling at \$65. Your gains may be protected by placing a \_\_\_\_\_
- A) stop-loss order
  - B) limit-buy order
  - C) market order
  - D) limit-sell order
  - E) none of the above.

Answer: D Difficulty: Moderate

Rationale: With a limit-sell order, your stock will be sold only at a specified price, or better. Thus, such an order would protect your gains. None of the other orders are applicable to this situation.

9. You sold ABC stock short at \$80 per share. Your losses could be minimized by placing a \_\_\_\_\_:
- A) limit-sell order
  - B) limit-buy order
  - C) stop-buy order
  - D) day-order
  - E) none of the above.

Answer: C Difficulty: Moderate

Rationale: With a stop-buy order, the stock would be purchased if the price increased to a specified level, thus limiting your loss. None of the other orders are applicable to this situation.

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10. The **fourth** market refers to
- A) trading of exchange-listed securities in the over-the-counter market.
  - B) trading of exchange-listed securities on the NYSE or AMEX.
  - C) direct trading between investors in exchange-listed securities without benefit of a broker.
  - D) trading of foreign stock exchange-listed securities.
  - E) none of the above.

Answer: C Difficulty: Moderate

Rationale: The fourth market evolved as institutional investors began to trade among themselves in order to avoid commission costs.

11. Which one of the following statements regarding orders is **false**?
- A) A market order is simply an order to buy or sell a stock immediately at the prevailing market price.
  - B) A limit sell order is where investors specify prices at which they are willing to sell a security.
  - C) If stock ABC is selling at \$50, a limit-buy order may instruct the broker to buy the stock if and when the share price falls below \$45.
  - D) A day order expires at the close of the trading day.
  - E) None of the above.

Answer: E Difficulty: Moderate

Rationale: All of the order descriptions above are correct.

12. Restrictions on trading involving insider information apply to the following **except**
- A) corporate officers and directors.
  - B) relatives of corporate directors and officers.
  - C) major stockholders.
  - D) All of the above are subject to insider trading restrictions.
  - E) None of the above is subject to insider trading restrictions.

Answer: D Difficulty: Moderate

Rationale: A, B, and C are corporate insiders and are subject to restrictions on trading on inside information. Further, the Supreme Court held that traders may not trade on nonpublic information even if they are not insiders.

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13. The cost of buying and selling a stock consists of \_\_\_\_\_.  
A) broker's commissions  
B) dealer's bid-asked spread  
C) a price concession an investor may be forced to make.  
D) A and B.  
E) A, B, and C.

Answer: E Difficulty: Moderate

Rationale: All of the above are possible costs of buying and selling a stock.

14. Assume you purchased 200 shares of XYZ common stock on margin at \$70 per share from your broker. If the initial margin is 55%, how much did you borrow from the broker?  
A) \$6,000  
B) \$4,000  
C) \$7,700  
D) \$7,000  
E) \$6,300

Answer: E Difficulty: Moderate

Rationale:  $200 \text{ shares} * \$70/\text{share} * (1-0.55) = \$14,000 * (0.45) = \$6,300$ .

15. You sold short 200 shares of common stock at \$60 per share. The initial margin is 60%. Your initial investment was  
A) \$4,800.  
B) \$12,000.  
C) \$5,600.  
D) \$7,200.  
E) none of the above.

Answer: D Difficulty: Moderate

Rationale:  $200 \text{ shares} * \$60/\text{share} * 0.60 = \$12,000 * 0.60 = \$7,200$

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16. You purchased 100 shares of ABC common stock on margin at \$70 per share. Assume the initial margin is 50% and the maintenance margin is 30%. Below what stock price level would you get a margin call? Assume the stock pays no dividend; ignore interest on margin.
- A) \$21
  - B) \$50
  - C) \$49
  - D) \$80
  - E) none of the above

Answer: B Difficulty: Difficult

Rationale:  $100 \text{ shares} * \$70 * .5 = \$7,000 * 0.5 = \$3,500$  (loan amount);  $0.30 = (100P - \$3,500)/100P$ ;  $30P = 100P - \$3,500$ ;  $-70P = -\$3,500$ ;  $P = \$50$ .

17. You purchased 100 shares of common stock on margin at \$45 per share. Assume the initial margin is 50% and the stock pays no dividend. What would the maintenance margin be if a margin call is made at a stock price of \$30? Ignore interest on margin.
- A) 0.33
  - B) 0.55
  - C) 0.43
  - D) 0.23
  - E) 0.25

Answer: E Difficulty: Difficult

Rationale:  $100 \text{ shares} * \$45/\text{share} * 0.5 = \$4,500 * 0.5 = \$2,250$  (loan amount);  $X = [100(\$30) - \$2,250]/100(\$30)$ ;  $X = 0.25$ .

18. You purchased 300 shares of common stock on margin for \$60 per share. The initial margin is 60% and the stock pays no dividend. What would your rate of return be if you sell the stock at \$45 per share? Ignore interest on margin.
- A) 25%
  - B) -33%
  - C) 44%
  - D) -42%
  - E) -54%

Answer: D Difficulty: Difficult

Rationale:  $300(\$60)(0.60) = \$10,800$  investment;  $300(\$60) = \$18,000$  X  $(0.40) = \$7,200$  loan; Proceeds after selling stock and repaying loan:  $\$13,500 - \$7,200 = \$6,300$ ; Return =  $(\$6,300 - \$10,800)/\$10,800 = -41.67\%$ .

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19. Assume you sell short 100 shares of common stock at \$45 per share, with initial margin at 50%. What would be your rate of return if you repurchase the stock at \$40/share? The stock paid no dividends during the period, and you did not remove any money from the account before making the offsetting transaction.
- A) 20%
  - B) 25%
  - C) 22%
  - D) 77%
  - E) none of the above

Answer: C Difficulty: Moderate

Rationale: Profit on stock =  $(\$45 - \$40) * 100 = \$500$ ,  $\$500/\$2,250$  (initial investment) = 22.22%.

20. You sold short 300 shares of common stock at \$55 per share. The initial margin is 60%. At what stock price would you receive a margin call if the maintenance margin is 35%?
- A) \$51
  - B) \$65
  - C) \$35
  - D) \$40
  - E) none of the above

Answer: B Difficulty: Difficult

Rationale: Equity =  $300(\$55) * 1.6 = \$26,400$ ;  $0.35 = (\$26,400 - 300P)/300P$ ;  $105P = 26,400 - 300P$ ;  $405P = 26,400$ ;  $P = \$65.18$

21. Assume you sold short 100 shares of common stock at \$50 per share. The initial margin is 60%. What would be the maintenance margin if a margin call is made at a stock price of \$60?
- A) 40%
  - B) 33%
  - C) 35%
  - D) 25%
  - E) none of the above

Answer: B Difficulty: Difficult

Rationale:  $\$5,000 * 1.6 = \$8,000$ ;  $[\$8,000 - 100(\$60)]/100(\$60) = 33\%$ .

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22. Specialists on stock exchanges perform the following functions
- A) Act as dealers in their own accounts.
  - B) Analyze the securities in which they specialize.
  - C) Provide liquidity to the market.
  - D) A and B.
  - E) A and C.

Answer: E Difficulty: Moderate

Rationale: Specialists are both brokers and dealers and provide liquidity to the market; they are not analysts.

23. Shares for short transactions
- A) are usually borrowed from other brokers.
  - B) are typically shares held by the short seller's broker in street name.
  - C) are borrowed from commercial banks.
  - D) B and C.
  - E) none of the above.

Answer: B Difficulty: Moderate

Rationale: Typically, the only source of shares for short transactions is those held by the short seller's broker in street name; often these are margined shares.

24. The over-the-counter market for exchange-listed securities is called the
- A) third market.
  - B) fourth market.
  - C) NASDAQ.
  - D) after-market.
  - E) none of the above.

Answer: A Difficulty: Moderate

Rationale: The third market originated when some exchange-listed securities were allowed to be traded in the OTC market at time when commissions were fixed on exchange-listed securities and institutional investors were trying to find a way to lower commission costs.



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25. Which of the following orders is most useful to short sellers who want to limit their potential losses?
- A) Limit order
  - B) Discretionary order
  - C) Limit-loss order
  - D) Stop-buy order
  - E) None of the above

Answer: D Difficulty: Moderate

Rationale: By issuing a stop-buy order, the short seller can limit potential losses by assuring that the stock will be purchased (and the short position closed) if the price increases to a certain level.

26. Shelf registration
- A) is a way of placing issues in the primary market.
  - B) allows firms to register securities for sale over a two-year period.
  - C) increases transaction costs to the issuing firm.
  - D) A and B.
  - E) A and C.

Answer: D Difficulty: Easy

Rationale: Shelf registration lowers transactions costs to the firm as the firm may register issues for a longer period than in the past, and thus requires the services of the investment banker less frequently.

27. The over-the-counter market
- A) has been growing in recent years.
  - B) is an automated market.
  - C) contains some firms that qualify for NYSE listing.
  - D) A and B.
  - E) A, B, and C.

Answer: E Difficulty: Easy

Rationale: A, B, and C are true and are reflective of a market that is challenging the NYSE in both size and innovation.

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28. NASDAQ subscriber levels
- A) permit those with the highest level, 3, to "make a market" in the security.
  - B) permit those with a level 2 subscription to receive all bid and ask quotes, but not to enter their own quotes.
  - C) permit level 1 subscribers to receive general information about prices.
  - D) include all OTC stocks.
  - E) A, B, and C.

Answer: E Difficulty: Easy

Rationale: NASDAQ links dealers in a loosely organized network with different levels of access to meet different needs.

29. Which of the following is **not** required under the AIMR standards of professional conduct?
- A) knowledge of all applicable laws, rules and regulations
  - B) disclosure of all personal investments whether or not they may conflict with a client's investments
  - C) disclosure of all conflicts to clients and prospects
  - D) reasonable inquiry into a client's financial situation
  - E) All of the above are required under the AIMR standards.

Answer: B Difficulty: Moderate

Rationale: See text box page 95. Personal investments need not be disclosed unless they are in potential or actual conflict.

30. You want to buy 100 shares of Hotstock Inc. at the best possible price as quickly as possible. You would most likely place a
- A) stop-loss order
  - B) stop-buy order
  - C) market order
  - D) limit-sell order
  - E) limit-buy order

Answer: C Difficulty: Easy

Rationale: A market order is for immediate execution at the best possible price.

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31. You want to purchase XYZ stock at \$60 from your broker using as little of your own money as possible. If initial margin is 50% and you have \$3000 to invest, how many shares can you buy?
- A) 100 shares
  - B) 200 shares
  - C) 50 shares
  - D) 500 shares
  - E) 25 shares

Answer: A Difficulty: Moderate

Rationale:  $.5 = [(Q * \$60) - \$3,000] / (Q * \$60)$ ;  $\$30Q = \$60Q - \$3,000$ ;  $\$30Q = \$3,000$ ;  $Q=100$ .

32. A sale by IBM of new stock to the public would be a(n)
- A) short sale.
  - B) seasoned new issue offering.
  - C) private placement.
  - D) secondary market transaction.
  - E) initial public offering.

Answer: B Difficulty: Easy

Rationale: When a firm whose stock already trades in the secondary market issues new shares to the public this is referred to as a seasoned new issue.

33. The finalized registration statement for new securities approved by the SEC is called
- A) a red herring
  - B) the preliminary statement
  - C) the prospectus
  - D) a best-efforts agreement
  - E) a firm commitment

Answer: C Difficulty: Moderate

Rationale: The prospectus is the finalized registration statement approved by the SEC.

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34. The minimum market value required for an initial listing on the New York Stock Exchange is
- A) \$2,000,000
  - B) \$2,500,000
  - C) \$1,100,000
  - D) \$60,000,000
  - E) 100,000,000

Answer: D Difficulty: Moderate

Rationale: See Table 3.2, page 73.

35. In 2001, the price of a seat on the NYSE reached a high of
- A) \$1,000,000
  - B) \$2,300,000
  - C) \$1,750,000
  - D) \$2,225,000
  - E) \$3,000,000

Answer: B Difficulty: Moderate

Rationale: See Table 3.1, page 72.

36. The floor broker is best described as
- A) an independent member of the exchange who owns a seat and handles overload work for commission brokers.
  - B) someone who makes a market in one or more securities.
  - C) a representative of a brokerage firm who is on the floor of the exchange to execute trade.
  - D) a frequent trader who performs no public function but executes trades for himself.
  - E) any counter party to a trade executed on the floor of the exchange.

Answer: A Difficulty: Easy

Rationale: The floor broker is an independent member of the exchange who handles work for commission brokers when they have too many orders to handle.

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37. You sell short 100 shares of Loser Co. at a market price of \$45 per share. Your maximum possible loss is
- A) \$4500
  - B) unlimited
  - C) zero
  - D) \$9000
  - E) cannot tell from the information given

Answer: B Difficulty: Moderate

Rationale: A short seller loses money when the stock price rises. Since there is no upper limit on the stock price, the maximum theoretical loss is unlimited.

38. You buy 300 shares of Qualitycorp for \$30 per share and deposit initial margin of 50%. The next day Qualitycorp's price drops to \$25 per share. What is your actual margin?
- A) 50%
  - B) 40%
  - C) 33%
  - D) 60%
  - E) 25%

Answer: B Difficulty: Moderate

Rationale:  $AM = [300 (\$25) - .5 (300) (\$30)] / [300 (\$25)] = .40$

39. When a firm markets new securities, a preliminary registration statement must be filed with
- A) the exchange on which the security will be listed.
  - B) the Securities and Exchange Commission.
  - C) the Federal Reserve.
  - D) all other companies in the same line of business.
  - E) the Federal Deposit Insurance Corporation.

Answer: B Difficulty: Easy

Rationale: The SEC requires the registration statement and must approve it before the issue can take place.

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40. In a typical underwriting arrangement the investment banking firm
- I) sells shares to the public via an underwriting syndicate.
  - II) purchases the securities from the issuing company.
  - III) assumes the full risk that the shares may not be sold at the offering price.
  - IV) agrees to help the firm sell the issue to the public but does not actually purchase the securities.
- A) I, II, and III
  - B) I, III, and IV
  - C) I and IV
  - D) II and III
  - E) I and II

Answer: A Difficulty: Moderate

Rationale: A typical underwriting arrangement is made on a firm commitment basis.

41. Which of the following is **true** regarding private placements of primary security offerings?
- A) Extensive and costly registration statements are required by the SEC.
  - B) For very large issues, they are better suited than public offerings.
  - C) They trade in secondary markets.
  - D) The shares are sold directly to a small group of institutional or wealthy investors.
  - E) They have greater liquidity than public offerings.

Answer: D Difficulty: Moderate

Rationale: Firms can save on registration costs, but the result is that the securities cannot trade in the secondary markets and therefore are less liquid. Public offerings are better suited for very large issues.

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42. Regional exchanges
- A) have stricter listing requirements than the NYSE.
  - B) service local brokerage firms only if the firms own seats on the NYSE.
  - C) handle shares of local firms that don't meet NYSE listing requirements.
  - D) automatically delist firms when they have grown enough to meet NYSE listing requirements.
  - E) exist only in foreign countries.

Answer: C Difficulty: Easy

Rationale: Regional exchange listing requirements are less strict than NYSE requirements. Brokerage firms can deal with regional exchanges regardless of whether they have NYSE seats. Delisting is not automatic - some firms choose to remain on the regional exchanges and are dual-listed. There are many regional exchanges in the U.S.

43. Electronic Communications Networks (ECNs) may be used
- I) as an alternative to the NYSE.
  - II) as an alternative to NASDAQ.
  - III) by institutional traders.
  - IV) to eliminate the bid-ask spread.
- A) I and III
  - B) II, and IV
  - C) I, II, and III
  - D) I and IV
  - E) I, II, III, and IV

Answer: E Difficulty: Moderate

Rationale: All four of the items listed are examples of how ECNs are used.

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44. A specialist on the Arizona Stock Exchange is offering to buy a security for \$37.50. A broker in Oklahoma City wants to sell the security for his client. The Intermarket Trading System shows a bid price of \$37.375 on the NYSE. What should the broker do?
- A) Route the order to the Arizona Stock Exchange.
  - B) Route the order to the NYSE.
  - C) Call the client to see if she has a preference.
  - D) Route half of the order to Arizona and the other half to the NYSE.
  - E) It doesn't matter - he should flip a coin and go with it.

Answer: A Difficulty: Moderate

Rationale: The broker should try to obtain the best price for his client. Since the client wants to sell shares and the bid price is higher on the ASE, he should route the order there.

45. According to the AIMR Standards of Professional Conduct, AIMR members have responsibilities to all of the following **except**:
- A) the government
  - B) the profession
  - C) the public
  - D) the employer
  - E) clients and prospective clients

Answer: A Difficulty: Moderate

Rationale: See "Excerpts from AIMR Standards of Professional Conduct" Box, page 97.

46. You sold short 100 shares of common stock at \$45 per share. The initial margin is 50%. Your initial investment was
- A) \$4,800.
  - B) \$12,000.
  - C) \$2,250.
  - D) \$7,200.
  - E) none of the above.

Answer: C Difficulty: Moderate

Rationale:  $100 \text{ shares} * \$45/\text{share} * 0.50 = \$4,500 * 0.50 = \$2,250$



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47. You sold short 150 shares of common stock at \$27 per share. The initial margin is 45%. Your initial investment was
- A) \$4,800.60.
  - B) \$12,000.25.
  - C) \$2,250.75.
  - D) \$1,822.50.
  - E) none of the above.

Answer: D Difficulty: Moderate

Rationale:  $150 \text{ shares} * \$27/\text{share} * 0.45 = \$4,050 * 0.45 = \$1,822.50$

48. You purchased 100 shares of XON common stock on margin at \$60 per share. Assume the initial margin is 50% and the maintenance margin is 30%. Below what stock price level would you get a margin call? Assume the stock pays no dividend; ignore interest on margin.
- A) \$42.86
  - B) \$50.75
  - C) \$49.67
  - D) \$80.34
  - E) none of the above

Answer: A Difficulty: Difficult

Rationale:  $100 \text{ shares} * \$60 * .5 = \$6,000 * 0.5 = \$3,000$  (loan amount);  $0.30 = (100P - \$3,000)/100P$ ;  $30P = 100P - \$3,000$ ;  $-70P = -\$3,000$ ;  $P = \$42.86$

49. You purchased 1000 shares of CSCO common stock on margin at \$19 per share. Assume the initial margin is 50% and the maintenance margin is 30%. Below what stock price level would you get a margin call? Assume the stock pays no dividend; ignore interest on margin
- A) \$12.86
  - B) \$15.75
  - C) \$19.67
  - D) \$13.57
  - E) none of the above

Answer: D Difficulty: Difficult

Rationale:  $1000 \text{ shares} * \$19 * .5 = \$19,000 * 0.5 = \$9,500$  (loan amount);  $0.30 = (1000P - \$9,500)/1000P$ ;  $300P = 1000P - \$9,500$ ;  $-700P = -\$9,500$ ;  $P = \$13.57$

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50. You purchased 100 shares of common stock on margin at \$40 per share. Assume the initial margin is 50% and the stock pays no dividend. What would the maintenance margin be if a margin call is made at a stock price of \$25? Ignore interest on margin.
- A) 0.33
  - B) 0.55
  - C) 0.20
  - D) 0.23
  - E) 0.25

Answer: C Difficulty: Difficult

Rationale:  $100 \text{ shares} * \$40/\text{share} * 0.5 = \$4,000 * 0.5 = \$2,000$  (loan amount);  $X = [100(\$25) - \$2,000]/100(\$25)$ ;  $X = 0.20$ .

51. You purchased 1000 shares of common stock on margin at \$30 per share. Assume the initial margin is 50% and the stock pays no dividend. What would the maintenance margin be if a margin call is made at a stock price of \$24? Ignore interest on margin.
- A) 0.33
  - B) 0.375
  - C) 0.20
  - D) 0.23
  - E) 0.25

Answer: B Difficulty: Difficult

Rationale:  $1000 \text{ shares} * \$30/\text{share} * 0.5 = \$30,000 * 0.5 = \$15,000$  (loan amount);  $X = [1000(\$24) - \$15,000]/1000(\$24)$ ;  $X = 0.375$ .

52. You purchased 100 shares of common stock on margin for \$50 per share. The initial margin is 50% and the stock pays no dividend. What would your rate of return be if you sell the stock at \$56 per share? Ignore interest on margin.
- A) 28%
  - B) 33%
  - C) 14%
  - D) 42%
  - E) 24%

Answer: E Difficulty: Difficult

Rationale:  $100(\$50)(0.50) = \$2,500$  investment; gain on stock sale =  $(56-50)(100) = \$600$ ; Return =  $(\$600/\$2,500) = 24\%$ .

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53. You purchased 100 shares of common stock on margin for \$35 per share. The initial margin is 50% and the stock pays no dividend. What would your rate of return be if you sell the stock at \$42 per share? Ignore interest on margin.
- A) 28%
  - B) 33%
  - C) 14%
  - D) 40%
  - E) 24%

Answer: D Difficulty: Difficult

Rationale:  $100(\$35)(0.50) = \$1,750$  investment; gain on stock sale  $= (42-35)(100) = \$700$ ; Return  $= (\$700/\$1,750) = 40\%$ .

54. Assume you sell short 1000 shares of common stock at \$35 per share, with initial margin at 50%. What would be your rate of return if you repurchase the stock at \$25/share? The stock paid no dividends during the period, and you did not remove any money from the account before making the offsetting transaction.
- A) 20.47%
  - B) 25.63%
  - C) 57.14%
  - D) 77.23%
  - E) none of the above

Answer: C Difficulty: Moderate

Rationale: Profit on stock  $= (\$35 - \$25)(1,000) = \$10,000$ ; initial investment  $= (\$35)(1,000)(.5) = \$17,500$ ; return  $= \$10,000/\$17,500 = 57.14\%$ .

55. Assume you sell short 100 shares of common stock at \$30 per share, with initial margin at 50%. What would be your rate of return if you repurchase the stock at \$35/share? The stock paid no dividends during the period, and you did not remove any money from the account before making the offsetting transaction.
- A) -33.33%
  - B) -25.63%
  - C) -57.14%
  - D) -77.23%
  - E) none of the above

Answer: A Difficulty: Moderate

Rationale: Profit on stock  $= (\$30 - \$35)(100) = -\$500$ ; initial investment  $= (\$30)(100)(.5) = \$1,500$ ; return  $= -\$500/\$1,500 = -33.33\%$ .

### Chapter 3 How Securities Are Traded

56. You want to purchase GM stock at \$40 from your broker using as little of your own money as possible. If initial margin is 50% and you have \$4000 to invest, how many shares can you buy?
- A) 100 shares
  - B) 200 shares
  - C) 50 shares
  - D) 500 shares
  - E) 25 shares

Answer: B Difficulty: Moderate

Rationale: you can buy  $(\$4000/\$40) = 100$  shares outright and you can borrow \$4,000 to buy another 100 shares.

57. You want to purchase IBM stock at \$80 from your broker using as little of your own money as possible. If initial margin is 50% and you have \$2000 to invest, how many shares can you buy?
- A) 100 shares
  - B) 200 shares
  - C) 50 shares
  - D) 500 shares
  - E) 25 shares

Answer: C Difficulty: Moderate

Rationale: You can buy  $(\$2000/\$80) = 25$  shares outright and you can borrow \$2,000 to buy another 25 shares.

58. Assume you sold short 100 shares of common stock at \$40 per share. The initial margin is 50%. What would be the maintenance margin if a margin call is made at a stock price of \$50?
- A) 40%
  - B) 20%
  - C) 35%
  - D) 25%
  - E) none of the above

Answer: B Difficulty: Difficult

Rationale:  $\$4,000 \times 1.5 = \$6,000$ ;  $[\$6,000 - 100(\$50)]/100(\$50) = 20\%$ .

## Chapter 3 How Securities Are Traded

59. Assume you sold short 100 shares of common stock at \$70 per share. The initial margin is 50%. What would be the maintenance margin if a margin call is made at a stock price of \$85?
- A) 40.5%
  - B) 20.5%
  - C) 35.5%
  - D) 23.5%
  - E) none of the above

Answer: D Difficulty: Difficult

Rationale:  $\$7,000 \times 1.5 = \$10,500$ ;  $[\$10,500 - 100(\$85)]/100(\$85) = 23.5\%$ .

60. You sold short 100 shares of common stock at \$45 per share. The initial margin is 50%. At what stock price would you receive a margin call if the maintenance margin is 35%?
- A) \$50
  - B) \$65
  - C) \$35
  - D) \$40
  - E) none of the above

Answer: A Difficulty: Difficult

Rationale:  $\text{Equity} = 100(\$45) \times 1.5 = \$6,750$ ;  $0.35 = (\$6,750 - 100P)/100P$ ;  $35P = 6,750 - 100P$ ;  $135P = 6,750$ ;  $P = \$50.00$

61. You sold short 100 shares of common stock at \$75 per share. The initial margin is 50%. At what stock price would you receive a margin call if the maintenance margin is 30%?
- A) \$90.23
  - B) \$88.52
  - C) \$86.54
  - D) \$87.12
  - E) none of the above

Answer: C Difficulty: Difficult

Rationale:  $\text{Equity} = 100(\$75) \times 1.5 = \$11,250$ ;  $0.30 = (\$11,250 - 100P)/100P$ ;  $30P = 11,250 - 100P$ ;  $130P = 11,250$ ;  $P = \$86.54$

## Chapter 3 How Securities Are Traded

### Short Answer Questions

62. Discuss the types of seats on the NYSE.

Answer: The majority of the seats are commission broker seats. These seats are owned by the retail brokerage firms and these members execute orders for their firms' clients.

A Second minor category of seats are the floor broker, or free lance broker, or \$2 broker, seats. These terms are used interchangeably. The \$2 broker title refers to the amount of the commission in days past. These brokers are free lancers, and work for the commission brokers when the commission brokers have more accounts than they can consummate at the moment.

A floor trader is the only exchange member with no public function. The floor trader holds membership in the exchange for the privilege of trading in his or her own account on the floor of the exchange. The floor trader thus avoids commissions. However, obviously one must have a very large portfolio for the price of a seat to offset commission costs. Also, this individual obviously has the time to spend on the exchange floor executing transactions. It has been suggested that this seat be eliminated as no public function is served. Only about 75 of the exchange seats are floor trader seats.

About 25% of the NYSE seats are specialist seats. The specialist has both a broker and a dealer function. As a broker, the specialist executes away from market (primarily limit) orders as these orders may be transacted. The specialist maintains a book of these orders as to the time and price placed and executes the orders when and if possible. The specialist transacts only in the few stocks in which he or she "specializes". The specialist also must maintain his or her own portfolio in these stocks, and is mandated to "maintain an orderly market" in these stocks. That is, if the price of one of these stocks declines dramatically the specialist is expected to buy the stock. On the other hand, if the price of the stock is increasing dramatically, the specialist is expected to sell the stock from his or her own portfolio. Thus, the specialist "equilibrates supply and demand for the stock." Note that the specialist is mandated to buy low and sell high, and that the specialist records potential supply and demand for the stock in the limit order book. Also, the specialist is able financially to act on this information as the seat entails capital requirements; and by being on the floor of the exchange, the specialist has proximity, which further enables the specialist to act. The specialist is a legal insider and earns above average rates of return. However, the specialist cannot place his or her order above those of clients, the

## Chapter 3 How Securities Are Traded

specialist must disclose his or her transactions, and the specialist is subject to unannounced audits. However, it has been suggested that the role of the specialist be eliminated, or replaced by that of the specialist on the other exchanges, which is to execute away from market orders only.

The prices of all seats are subject to supply and demand.

Difficulty: Moderate

63. Of the secondary stock markets, which have been expanding and which have been contracting? Give some of the reasons for the changes.

Answer: The over the counter market (OTC) has grown dramatically in recent years. The market has become much more automated and information-efficient. The National Association of Security Dealers Automated Quotations (NASDAQ) system is part of the reason for this growth. NASDAQ consists of the more broadly traded OTC stocks. Up to date price quotations are available on these stocks, and thus investors are much more willing to invest in these stocks than prior to the creation of this system. In recent years, many firms which have grown large enough to qualify for NYSE listing have chosen to remain NASDAQ traded.

The OTC market has taken some growth from the NYSE, largely due to the increased technology of the OTC market. The American Stock Exchange (AMEX) has decreased in size dramatically in recent years. This exchange is being pressured both from the top and from the bottom. That is, as mergers and acquisitions occurred (primarily in the 1980s), often two AMEX firms merged into one firm large enough for NYSE listing. In addition, the AMEX also has experienced the pressure from the OTC market as larger firms chose to remain in that market.

Difficulty: Moderate

### Chapter 3 How Securities Are Traded

64. Discuss margin buying of common stocks. Include in your discussion the advantages and disadvantages, the types of margin requirements, how these requirements are met, and who determines these requirements.

Answer: Buying stock on margin means buying stock with partially borrowed funds. These funds are borrowed from your broker, who has borrowed the funds from a commercial bank. The initial margin requirement is the percent of the funds that must be your own. The current initial margin requirement is 50% and is set by the Federal Reserve System. Margin is simply equity as a percent of the value of your account. Subsequent to opening the account, stock prices change and thus the margin of your account changes. The maintenance margin is the relevant margin after you open your account. A 25% maintenance margin is required for NYSE listed stocks; however, most brokers will require a maintenance margin above that amount. If the margin of your account falls below the maintenance margin requirement, you will receive a margin call. You can either send your broker more cash to reduce the amount of the original loan to get your account back to the required maintenance margin, or your broker can sell some of the shares for you, using the proceeds to reduce the amount of your original loan, thus getting your account back to the margin requirement.

If the price of the stock increases, your account will become overmargin and you can either pyramid (buy more shares without using any of your own cash) or you can withdraw cash from the account (increasing the amount of the loan). If you execute either of these actions, you must not let your account fall below the initial margin requirement (increasing the number of shares or the amount of the loan requires the account to be treated as a new account).

The advantage of margin is that of leverage. If the price of stock increases you own more shares than had you used only your own funds and your returns will be greater. The disadvantage of margin is that if the price of the stock declines you will own more shares and your losses will be greater than had you used only your own funds.

Difficulty: Moderate

65. List three factors that are listing requirements for the New York Stock Exchange. Why does the exchange have such requirements?

Answer: Factors include, but are not limited to, minimum pretax income in the last year, minimum average annual pretax income in the previous two years, minimum market value of publicly held stock, minimum number of shares publicly held, and a minimum number of holders of one hundred shares or more. The NYSE has these requirements to ensure that the firm has enough trading interest for the NYSE to allocate facilities and floor space.

Difficulty: Moderate



### Chapter 3 How Securities Are Traded

66. List two advantages and two disadvantages or concerns about the use of Electronic Communications Networks (ECNs).

Answer: Some advantages are that the systems allow brokers and dealers to view quotes for all markets. This increases the chance that clients will get the best price. The goal of ECNs is to unify markets. Some disadvantages or concerns are that the systems don't provide for automatic execution in the market with the best price and they may be too slow to integrate NYSE prices. Also, they may lead to market fragmentation rather than integration because users of one ECN may not have information from other ECNs.

Difficulty: Moderate