

I. DEFINITIONS

SPECULATIVE MOTIVE

- a 1. The need to hold cash to take advantage of additional investment opportunities is called the _____ motive.
- a. speculative
 - b. precautionary
 - c. transaction
 - d. float
 - e. compensating balances

PRECAUTIONARY MOTIVE

- b 2. The need to hold cash as a safety margin to act as a financial reserve is called the _____ motive.
- a. speculative
 - b. precautionary
 - c. transaction
 - d. float
 - e. compensating balances

TRANSACTION MOTIVE

- c 3. The need to hold cash to satisfy the ongoing disbursement and collection activities of a firm as part of its daily operations is called the _____ motive.
- a. speculative
 - b. precautionary
 - c. transaction
 - d. float
 - e. compensating balances

LEDGER BALANCE

- d 4. The balance of cash shown by a firm on its books at any one time is the firm's:
- a. tax balance.
 - b. ready balance.
 - c. speculative cash.
 - d. ledger balance.
 - e. available balance.

AVAILABLE BALANCE

- e 5. The balance of cash in a firm's bank account that can be spent is the firm's:
- a. tax balance.
 - b. book value.
 - c. float.
 - d. ledger balance.
 - e. available balance.

CHAPTER 20

FLOAT

- c 6. The difference between a firm's ledger balance and its available balance is called the firm's:
- a. tax balance.
 - b. market value of cash.
 - c. float.
 - d. book balance.
 - e. collected balance.

LOCKBOXES

- b 7. _____ are special post office boxes often set up by a firm to expedite the receipt and processing of its accounts receivables payments.
- a. Float managers
 - b. Lockboxes
 - c. Open accounts
 - d. Open boxes
 - e. List-on-demand boxes

CASH CONCENTRATION

- a 8. The practice of and procedures for moving cash from multiple banks into a firm's centralized bank account is known as:
- a. cash concentration.
 - b. strategic cash disbursement.
 - c. transfer flotation.
 - d. payables management.
 - e. float management.

ZERO-BALANCE ACCOUNT

- d 9. A disbursement account for which the firm maintains no balance, transferring in funds from a master account only when needed to cover demands for payment, is called a _____ account.
- a. lockbox
 - b. cleanup
 - c. compensating balance
 - d. zero-balance
 - e. revolving

CONTROLLED DISBURSEMENT ACCOUNT

- e 10. An account where the firm transfers in funds, usually from a master account, in an amount sufficient to cover demands for payment, is called a _____ account.
- a. lockbox
 - b. cleanup
 - c. compensating balance
 - d. revolving
 - e. controlled disbursement

APPENDIX: TARGET CASH BALANCE

- a 11. The firm's desired cash level as determined by the tradeoff between carrying costs and shortage costs is called its:
 - a. target cash balance.
 - b. adjustment costs.
 - c. variable costs.
 - d. total costs.
 - e. compensating balance.

APPENDIX: ADJUSTMENT COSTS

- b 12. The costs of holding too little cash are called _____ costs.
 - a. carrying
 - b. adjustment
 - c. maintenance
 - d. variable
 - e. total

II. CONCEPTS

MOTIVES FOR LIQUIDITY

- b 13. Which one of the following statements is correct concerning a motive for maintaining liquidity?
 - a. Firms should maintain compensating balances just in case they encounter an emergency situation.
 - b. Firms need to hold cash as a buffer between inflowing and outflowing transactions.
 - c. International firms have a transactional motive to hold cash in case favorable exchange rates become available.
 - d. Firms need to hold cash for precautionary motives especially since money market accounts are not very liquid.
 - e. The increasing use of electronic funds transfers is increasing the transactional motive to hold cash.

DISBURSEMENTS FLOAT

- d 14. Disbursement float:
 - I. is created by checks which have been deposited into a firm's bank account but which have not yet cleared.
 - II. is sometimes used by firms to fund short-term investments even though such use is ethically questionable.
 - III. is created by any transaction which decreases a firm's book balance but not its available cash balance.
 - IV. is virtually eliminated when payments are made electronically.
 - a. I and III only
 - b. II and IV only
 - c. I, II, and IV only
 - d. II, III, and IV only
 - e. I, II, III, and IV

COLLECTION FLOAT

- e 15. Collection float:
 - a. is more desirable to firms than disbursement float.
 - b. is fully eliminated by the installation of a lockbox system.
 - c. exists when a firm's available balance exceeds its book balance.
 - d. increases for a firm when its customers opt to pay their bills electronically.
 - e. can increase the investment income of a firm if the firm can eliminate such float.

NET FLOAT

- d 16. Net float:
 - I. is the sum of the total collection and disbursements float.
 - II. that is positive is preferred by firms over net float that is negative.
 - III. that is positive is called net collection float.
 - IV. is the difference between a firm's ledger balance and its available balance.
 - a. I and II only
 - b. III and IV only
 - c. I, II, and III only
 - d. I, II, and IV only
 - e. II, III, and IV only

ETHICAL ISSUE

- d 17. Check kiting:
 - a. is ethical.
 - b. occurs when you write checks against the collection float of your firm.
 - c. is widely practiced by most corporations.
 - d. is the exploitation of disbursement float through the use of checks.
 - e. is increasing due to recent improvements in the banking system.

COLLECTION TIME

- d 18. Collection time:
 - a. is equal to mail time plus the processing delay minus the availability delay.
 - b. increases when payments are made electronically.
 - c. increases when customers' bills are sent electronically.
 - d. is decreased when customers pay at the point of sale rather than when they are billed.
 - e. is independent of the business nature of a firm.

COLLECTION TIME

- c 19. Which of the following will decrease the total collection time for a firm?
 - I. implementing a lockbox system
 - II. billing customers electronically
 - III. establishing preauthorized payment arrangements
 - IV. accepting debit card transactions
 - a. I and III only
 - b. II and IV only
 - c. I, III, and IV only
 - d. II, III, and IV only
 - e. I, II, III, and IV

COLLECTION TIME

- e 20. Which of the following should help reduce the total collection time for your firm?
- I. collecting your firm's mail earlier in the morning and delivering it directly to the people who process these payments
 - II. adding additional staff in the mornings for mail and payment processing
 - III. providing a discount for customers who pay electronically
 - IV. establishing preauthorized payments for fixed payments from customers
- a. I and II only
 - b. III and IV only
 - c. II, III, and IV only
 - d. I, II, and IV only
 - e. I, II, III, and IV

LOCKBOXES

- b 21. A lockbox system:
- a. entails the use of a bank which is centrally located to collect payments on a nationwide basis.
 - b. deposits customer checks prior to recording customer payments to their respective receivable accounts.
 - c. is used to reduce the disbursement float of a firm.
 - d. is efficient irregardless of the locations selected for lockbox destinations.
 - e. entails the posting of customer payments to their receivables account followed by a deposit of the funds received.

LOCKBOXES

- a 22. Lockboxes:
- a. should be geographically located close to a firm's primary customers.
 - b. should be located in remote locations to increase the net disbursement float.
 - c. that are electronic are less efficient than traditional lockboxes.
 - d. tend to be negative net present value projects for firms with a large number of sizeable transactions.
 - e. tend to also be used as concentration accounts.

CASH CONCENTRATION

- a 23. Cash concentration accounts:
- a. tend to increase the funds available for short-term investing.
 - b. tend to increase the complexity of a firm's cash management.
 - c. that utilize wire transfers are the cheapest to maintain from a cost point of view.
 - d. receive checks directly from all of a firm's customers.
 - e. are all zero-balance accounts.

CASH CONCENTRATION

- e 24. Which one of the following statements is correct?
- a. Funds received via an automated clearinghouse transfer is available that day.
 - b. A depository transfer check is the most costly means of transferring funds into a cash concentration account.
 - c. The means selected to transfer funds is dependent upon both the size and the number of checks received at a collection point.
 - d. Concentration accounts are used to transfer funds to lockbox locations as needed.
 - e. The most expedient means of transferring funds into a concentration account is a wire transfer.

CASH CONCENTRATION

- d 25. A cash concentration account:
- I. is frequently used to fund the purchase of repurchase agreements.
 - II. could be used to cover a compensating balance requirement.
 - III. is oftentimes used to transfer funds into zero-balance or controlled disbursements accounts.
 - IV. is managed by the credit manager of a firm.
- a. I and III only
 - b. II and IV only
 - c. II and III only
 - d. I, II, and III only
 - e. I, II, III, and IV

CASH CONCENTRATION

- c 26. The main purpose of a cash concentration account is to:
- a. decrease collection float.
 - b. decrease disbursement float.
 - c. consolidate funds.
 - d. replace a lockbox system.
 - e. cover compensating balance requirements.

CASH CONCENTRATION

- b 27. Which one of the following statements is correct?
- a. Cash concentration accounts apply only to firms with geographically diversified manufacturing facilities.
 - b. Cash concentration accounts should improve the efficiency of a firm's cash management.
 - c. A firm with a lock-box system does not need a concentration account.
 - d. Firms generally need multiple concentration accounts.
 - e. Concentration accounts are not needed when a firm's disbursements are all done electronically.

ZERO-BALANCE ACCOUNTS

- c 28. A zero balance account:
- a. is used to cover the compensating balance requirement of a line of credit agreement.
 - b. is only used to deposit funds received at local lockboxes.
 - c. is funded on an as-needed basis only.
 - d. is limited to handling payroll disbursements.
 - e. requires a compensating balance.

ZERO-BALANCE ACCOUNTS

- c 29. Which one of the following statements is correct concerning zero-balance accounts?
 - a. Each zero-balance account is offset by a compensating balance account.
 - b. Zero-balance accounts are used for depositing incoming funds.
 - c. A master account must be used in conjunction with a zero-balance account.
 - d. Zero-balance accounts are used solely in conjunction with a lockbox system.
 - e. Zero-balance accounts are still required to maintain a minimal balance.

MANAGEMENT OF CASH SURPLUS/DEFICIT

- c 30. Which one of the following statements is correct?
 - a. Short-term assets that trade in the money market account mature in two years or less.
 - b. Banks forbid the transference of excess funds from a checking account into an investment account on a daily basis.
 - c. Firms sometimes create a temporary cash surplus because they are saving funds for a major expenditure.
 - d. Cyclical firms increase their long-term financing such that they continually have a cash surplus.
 - e. Corporations are not permitted to use money market mutual funds but can use bank money market accounts.

MANAGEMENT OF CASH SURPLUS/DEFICIT

- e 31. Which two of the following are the primary reasons why firms have cash surpluses?
 - I. cyclical activities
 - II. desire to invest funds
 - III. excessive short-term financing
 - IV. financing of planned expenditures
 - a. I and III only
 - b. II and IV only
 - c. I and II only
 - d. III and IV only
 - e. I and IV only

SHORT-TERM SECURITIES

- c 32. Which one of the following statements is correct?
 - a. Short-term securities are more interest rate sensitive than long-term securities.
 - b. The rate of return earned on short-term securities tends to exceed that earned on long-term securities.
 - c. U.S. Treasury bills are well suited for short-term investments.
 - d. The income earned on U.S. Treasury bills is exempt from all taxation.
 - e. Short-term investments tend to have high levels of default risk.

SHORT-TERM SECURITIES

- a 33. Municipal bonds:
 - a. are less marketable than U.S. Treasury bills.
 - b. produce income which is taxed at the federal level.
 - c. generally carry a higher coupon rate than corporate bonds.
 - d. are also referred to as commercial paper.
 - e. are issued by the federal government.

SHORT-TERM SECURITIES

- d 34. Which of the following are characteristics of money market securities?
- I. long-term maturities
 - II. low default risk
 - III. highly marketable
 - IV. very liquid
- a. I and III only
 - b. II and III only
 - c. I and IV only
 - d. II, III, and IV only
 - e. I, II, III, and IV

SHORT-TERM SECURITIES

- e 35. A jumbo CD:
- a. is issued by the federal government.
 - b. generally matures between 2 and 5 years.
 - c. is a loan of \$100,000 or more to a state.
 - d. with a 6-month maturity is generally illiquid.
 - e. is a short-term loan to a commercial bank.

SHORT-TERM SECURITIES

- b 36. Assume that your firm buys a U.S. Treasury bill today with the understanding that the seller will buy it back tomorrow at a slightly higher price. This investment is known as a:
- a. commercial paper transaction.
 - b. repurchase agreement.
 - c. private certificate of deposit.
 - d. revenue anticipation note.
 - e. jumbo CD.

SHORT-TERM SECURITIES

- d 37. A money market preferred stock:
- a. has a fixed dividend.
 - b. is sold only with the agreement that it will be repurchased by the seller within the week.
 - c. is a special form of commercial paper.
 - d. provides tax advantaged income to corporations.
 - e. has its interest rate reset daily.

APPENDIX: TARGET CASH BALANCE

- c 38. The target cash balance can be defined as the point where the:
- a. opportunity costs of holding cash are equal to zero.
 - b. opportunity costs of holding cash are maximized.
 - c. opportunity costs of holding cash are equal to the trading costs.
 - d. trading costs are equal to zero.
 - e. trading costs are maximized.

APPENDIX: BAT MODEL

- b 39. Which of the following statements are correct concerning the BAT model?
- I. This model is used to determine the optimal debt-equity ratio for a firm.
 - II. One advantage of the BAT model is that it assumes that a firm has a constant cash outflow every day.
 - III. The BAT model is a complex model designed to estimate the cash flows of a firm.
 - IV. One disadvantage of the BAT model is the fact that it assumes all cash outflows are known with certainty.
- a. I only
 - b. IV only
 - c. II and III only
 - d. I and II only
 - e. III and IV only

APPENDIX: BAT MODEL

- e 40. Which of the following are needed to determine the optimal strategy using the BAT model?
- I. the amount of cash needed for transactions over a period of time
 - II. management's desired lower level of cash
 - III. the opportunity cost of holding cash
 - IV. the fixed cost of a securities trade
- a. II only
 - b. I and III only
 - c. II and IV only
 - d. III and IV only
 - e. I, III, and IV only

APPENDIX: BAT MODEL

- b 41. The BAT model is used to:
- a. maximize the benefits of leverage.
 - b. determine the optimal cash position of a firm.
 - c. eliminate all daily cash surpluses.
 - d. analyze the cash balance given fluctuating cash inflows and outflows.
 - e. maximize the opportunity costs of holding cash.

APPENDIX: MILLER-ORR MODEL

- e 42. The Miller-Orr model assumes that:
- a. all cash flows are constant.
 - b. all cash flows are known with certainty.
 - c. the average change in the daily cash flows is positive and continually increasing.
 - d. management sets the upper cash limit.
 - e. all cash flows fluctuate randomly.

APPENDIX: MILLER-ORR MODEL

- e 43. The Miller-Orr model:
 - a. is more simplistic than the BAT model.
 - b. analyzes cash balances within both an upper limit and a lower limit as set by management.
 - c. bases the optimal level of cash solely on the opportunity costs of holding cash.
 - d. supports the argument that the target cash balance declines as order costs increase.
 - e. is based on cash flows that randomly fluctuate.

APPENDIX: TARGET CASH BALANCE

- d 44. Which of the following statements is (are) correct?
 - I. A firm has a greater likelihood of needing an unexpected loan when its cash flows are relatively constant over time.
 - II. The cost of borrowing and the cost of selling securities affect the target cash balance of a firm.
 - III. Management's desire to maintain a low cash balance affects their need to borrow money.
 - IV. The target cash balance decreases as the interest rate rises.
- a. II and III only
- b. II and IV only
- c. I, II, and IV only
- d. II, III, and IV only
- e. I, II, III, and IV

III. PROBLEMS

DISBURSEMENT FLOAT

- e 45. You have a ledger balance of \$1,500. You have \$2,500 in uncollected deposits and \$4,300 in outstanding checks. What is the amount of your disbursement float?
 - a. -\$300
 - b. \$0
 - c. \$1,000
 - d. \$2,800
 - e. \$4,300

DISBURSEMENT FLOAT

- e 46. On an average day, your firm writes 20 checks with an average amount of \$430. These checks clear your bank in an average of 4 days. What is the average amount of your disbursement float?
 - a. \$1,720
 - b. \$2,150
 - c. \$8,600
 - d. \$17,200
 - e. \$34,400

COLLECTION FLOAT

- c 47. Your firm receives 30 checks from customers on an average day. These checks, on average, are worth \$45 each and clear the bank in 5 days. In addition, your firm mails out 20 checks a day with an average amount of \$42. These checks clear your bank in 4 days. What is the average amount of the collection float?
- a. \$3,360
 - b. \$3,390
 - c. \$6,750
 - d. \$7,240
 - e. \$10,110

COLLECTION FLOAT

- b 48. When you reconciled your checkbook, you had an adjusted bank balance of \$2,650. You had 6 checks outstanding with a total value of \$4,100 and 2 outstanding deposits worth \$1,200 each. What is the amount of your collection float?
- a. \$1,200
 - b. \$2,400
 - c. \$6,500
 - d. \$24,600
 - e. \$27,000

NET FLOAT

- d 49. Your firm has an available balance of \$1,380 and a ledger balance of \$1,210. The deposit of \$560 that was made today is not yet included in the bank's balance. There are also 5 checks outstanding with a total value of \$730. What is the net float?
- a. net collection float of \$170
 - b. net collection float of \$340
 - c. net float of \$0
 - d. net disbursement float of \$170
 - e. net disbursement float of \$340

NET FLOAT

- a 50. A firm has \$23,630 in outstanding checks that have not cleared the bank. The firm also has \$31,000 in deposits that have been recorded by the firm but not by the bank. The current available balance is \$14,710. What is the status of the net float?
- a. net collection float of \$7,370
 - b. net collection float of \$22,080
 - c. net collection float of \$31,000
 - d. net disbursement float of \$7,370
 - e. net disbursement float of \$22,080

AVERAGE DAILY FLOAT

- a 51. Your firm generally receives 4 checks a month. The check amounts and the collection delay for each check is shown below. Given this information what is the amount of the average daily float? Assume a 30-day month.

<u>Item Number</u>	<u>Item Amount</u>	<u>Delay</u>
1	\$2,500	4
2	\$8,700	3
3	\$6,000	2
4	\$9,500	6

- a. \$3,503.33
- b. \$4,450.00
- c. \$6,675.00
- d. \$7,006.67
- e. \$9,500.00

AVERAGE DAILY FLOAT

- b 52. Your firm generally receives 3 checks a month. A month is defined as a 30-day period. The check amounts and the collection delay for each check are shown below. Given this information, what is the amount of the average daily float?

<u>Item Number</u>	<u>Item Amount</u>	<u>Delay</u>
1	\$8,700	2
2	\$1,200	6
3	\$5,500	5

- a. \$1,333.33
- b. \$1,736.67
- c. \$2,188.89
- d. \$5,133.33
- e. \$6,673.33

AVERAGE DAILY FLOAT

- c 53. Your firm generally receives 3 checks a month. The check amounts and the collection delay for each check are shown below. Given this information, what is the amount of the average daily float? Assume that a month has 30 days.

<u>Item Number</u>	<u>Item Amount</u>	<u>Delay</u>
1	\$12,700	3
2	\$ 8,200	4
3	\$ 4,500	5

- a. \$705.56
- b. \$934.00
- c. \$3,113.33
- d. \$7,783.33
- e. \$8,466.67

AVERAGE DAILY FLOAT

- a 54. Your firm generally receives 4 checks a month. The check amounts and the collection delay for each check are shown below. Given this information, what is the amount of the average daily float? Assume that a month has 30 days.

<u>Item Number</u>	<u>Item Amount</u>	<u>Delay</u>
1	\$1,200	3
2	\$ 800	4
3	\$1,000	5
4	\$1,100	2

- a. \$466.67
 b. \$1,000.00
 c. \$1,025.00
 d. \$2,666.67
 e. \$4,666.67

AVERAGE DAILY RECEIPTS

- a 55. Your firm deals strictly with three customers. The average amount that each customer pays per month along with the collection delay associated with each payment is shown below. Given this information, what is the amount of the average daily receipts? Assume that every month has 30 days.

<u>Customer</u>	<u>Check Amount</u>	<u>Collection Delay</u>
A	\$42,000	3 days
B	\$19,000	5 days
C	\$31,000	2 days

- a. \$3,066.67
 b. \$4,600.00
 c. \$6,666.67
 d. \$9,200.00
 e. \$9,433.33

AVERAGE DAILY RECEIPTS

- b 56. Your firm deals strictly with four customers. The average amount that each customer pays per month along with the collection delay associated with each payment is shown below. Given this information, what is the amount of the average daily receipts? Assume that every month has 30 days.

<u>Customer</u>	<u>Check Amount</u>	<u>Collection Delay</u>
A	\$3,000	2 days
B	\$2,000	4 days
C	\$9,000	3 days
D	\$6,000	5 days

- a. \$500.00
 b. \$666.67
 c. \$1,428.57
 d. \$5,000.00
 e. \$6,666.67

AVERAGE DAILY RECEIPTS

- c 57. Your firm deals strictly with three customers. The average amount that each customer pays per month along with the collection delay associated with each payment is shown below. Given this information, what is the amount of the average daily receipts? Assume that every month has 30 days.

<u>Customer</u>	<u>Check Amount</u>	<u>Collection Delay</u>
A	\$22,000	2 days
B	\$18,000	6 days
C	\$ 9,000	3 days

- a. \$233.33
- b. \$466.67
- c. \$1,633.33
- d. \$4,454.55
- e. \$5,966.67

WEIGHTED AVERAGE DELAY

- d 58. Your firm deals strictly with three customers. The average amount that each customer pays per month along with the collection delay associated with each payment is shown below. Given this information, what is the weighted average delay? Assume that every month has 30 days.

<u>Customer</u>	<u>Check Amount</u>	<u>Collection Delay</u>
A	\$42,000	3 days
B	\$19,000	5 days
C	\$31,000	2 days

- a. 2.33 days
- b. 2.67 days
- c. 2.87 days
- d. 3.08 days
- e. 3.24 days

WEIGHTED AVERAGE DELAY

- e 59. Your firm deals strictly with four customers. The average amount that each customer pays per month along with the collection delay associated with each payment is shown below. Given this information, what is the weighted average delay? Assume that every month has 30 days.

<u>Customer</u>	<u>Check Amount</u>	<u>Collection Delay</u>
A	\$3,000	2 days
B	\$2,000	4 days
C	\$9,000	3 days
D	\$6,000	5 days

- a. 3.01 days
- b. 3.27 days
- c. 3.32 days
- d. 3.50 days
- e. 3.55 days

WEIGHTED AVERAGE DELAY

- d 60. Your firm deals strictly with three customers. The average amount that each customer pays per month along with the collection delay associated with each payment is shown below. Given this information, what is the weighted average delay? Assume that every month has 30 days.

<u>Customer</u>	<u>Check Amount</u>	<u>Collection Delay</u>
A	\$22,000	2 days
B	\$18,000	6 days
C	\$ 9,000	3 days

- a. 3.11 days
 b. 3.43 days
 c. 3.59 days
 d. 3.65 days
 e. 3.80 days

COST OF FLOAT

- e 61. On an average day, your firm receives \$1,500 in checks from customers. These checks clear the bank in an average of 3.5 days. The applicable daily interest rate is .025 percent. What is the present value of the float? Assume each month has 30 days.
- a. \$131.25
 b. \$252.50
 c. \$321.43
 d. \$3,214.29
 e. \$5,250.00

COST OF FLOAT

- e 62. On an average day, your firm receives \$1,500 in checks from customers. These checks clear the bank in an average of 3.5 days. The applicable daily interest rate is .025 percent. What is the maximum amount your firm should pay to completely eliminate the collection float? Assume each month has 30 days.
- a. \$252.50
 b. \$1,125.00
 c. \$2,550.00
 d. \$3,214.29
 e. \$5,250.00

MAXIMUM DAILY FEE

- d 63. On an average day, your firm receives \$6,400 in checks from customers. These checks clear the bank in an average of 3 days. The applicable daily interest rate is .03 percent. What is the highest daily fee your firm should pay to completely eliminate the collection float? Assume each month has 30 days.
- a. \$1.92
 b. \$3.84
 c. \$4.24
 d. \$5.76
 e. \$5.99

MAXIMUM DAILY FEE

- e 64. On an average day, your firm receives \$19,200 in checks from customers. These checks clear the bank in an average of 2 days. The applicable daily interest rate is .02 percent. What is the highest daily fee your firm should pay to completely eliminate the collection float? Assume each month has 30 days.
- a. \$1.92
 - b. \$3.84
 - c. \$4.67
 - d. \$6.33
 - e. \$7.68

COLLECTION TIME

- c 65. Your average customer is located 3 mailing days away from your firm. In addition, it takes 4 days for your funds to be available for use once you have made your bank deposit. You have determined that your total collection time is 11 days. How long on average is it taking your firm to process the payments from your customers?
- a. 2 days
 - b. 3 days
 - c. 4 days
 - d. 7 days
 - e. 8 days

COLLECTION TIME

- c 66. It takes your firm 2 days to prepare and mail out the monthly statements to your customers. On average, the mail time between your firm and your customers is 3.5 days. It takes your firm an average of 2.5 days to process customer payments once they are received. Customer checks take an average of 2 days to clear the bank. What is your total collection time?
- a. 4.5 days
 - b. 7.0 days
 - c. 8.0 days
 - d. 10.0 days
 - e. 13.5 days

COLLECTION TIME

- d 67. Currently, your firm requires 2 days to process the checks which customers mail in to pay for their credit purchases. The average mail time associated with these payments is 4 days and the check clearing time is 3 days. If your firm adopts a lockbox system, the mail time will be cut in half. In addition, if employees are reassigned, checks could be processed in 1 day. How long will your collection time be if both the lockbox system and the job reassignments are implemented?
- a. 3 days
 - b. 4 days
 - c. 5 days
 - d. 6 days
 - e. 7 days

LOCKBOX DAILY SAVINGS

- e 68. You are considering implementing a lockbox system for your firm. The system is expected to reduce the collection time by 2 days. On an average day, your firm receives 460 checks with an average value of \$350 each. The daily interest rate on Treasury bills is .01 percent. The bank charge per check would be \$.20. What is the anticipated amount of the daily savings if this system is implemented?
- a. \$16.10
 - b. \$24.15
 - c. \$27.50
 - d. \$29.10
 - e. \$32.20

LOCKBOX DAILY SAVINGS

- d 69. The Baker Co. receives an average of 230 checks a day. The average amount per check is \$1,150. The firm is considering a lockbox system which it anticipates will reduce the average collection time by 3 days. The daily interest rate on Treasury bills is .008 percent. What is the amount of the expected daily savings of the lockbox system?
- a. \$4.68
 - b. \$6.35
 - c. \$46.82
 - d. \$63.48
 - e. \$77.78

LOCKBOX DAILY COST

- a 70. The Baker Co. receives an average of 230 checks a day. The average amount per check is \$1,150. The firm is considering a lockbox system which it anticipates will reduce the average collection time by 3 days. The bank charges \$.25 a check for this service. The daily interest rate on Treasury bills is .008 percent. What is the average daily cost of the lockbox system?
- a. \$57.50
 - b. \$63.48
 - c. \$77.78
 - d. \$115.00
 - e. \$172.50

LOCKBOX DAILY COST

- b 71. You are considering implementing a lockbox system for your firm. The system is expected to reduce the collection time by 2 days. On an average day, your firm receives 460 checks with an average value of \$350 each. The daily interest rate on Treasury bills is .01 percent. The bank charge per check would be \$.20. What is the anticipated daily cost of the lockbox system?
- a. \$16.10
 - b. \$92.00
 - c. \$108.10
 - d. \$123.60
 - e. \$161.00

LOCKBOX NET PRESENT VALUE

- e 72. You are considering implementing a lockbox system for your firm. The system is expected to reduce the collection time by 3 days. On an average day, your firm receives 1,280 checks with an average value of \$690 each. The daily interest rate on Treasury bills is .01 percent. The bank charge per check would be \$.20. What is the net present value of this lockbox arrangement?
- a. \$52,992
 - b. \$69,000
 - c. \$78,888
 - d. \$88,320
 - e. \$89,600

LOCKBOX NET PRESENT VALUE

- c 73. Charlie Co. receives an average of 175 checks a day. The average amount per check is \$2,100. The firm is considering a lockbox system which it anticipates will reduce the average collection time by 2 days. The bank charges \$.25 a check for this service. The daily interest rate on Treasury bills is .01 percent. What is the net present value of this lockbox arrangement?
- a. \$183,750
 - b. \$185,588
 - c. \$297,500
 - d. \$312,500
 - e. \$327,878

APPENDIX: BAT MODEL

- e 74. Your firm needs \$135,000 a week to pay bills. The standard deviation of the weekly disbursements is \$12,000. The firm has established a lower cash balance limit of \$60,000. The applicable interest rate is 5 percent and the fixed cost of transferring funds is \$45. What is the optimal initial cash balance?
- a. \$34,104
 - b. \$49,006
 - c. \$56,205
 - d. \$68,208
 - e. \$112,410

APPENDIX: BAT MODEL

- c 75. Your firm needs \$135,000 a week to pay bills. The standard deviation of the weekly disbursements is \$12,000. The firm has established a lower cash balance limit of \$60,000. The applicable interest rate is 5 percent and the fixed cost of transferring funds is \$45. What is the optimal average cash balance?
- a. \$41,398
 - b. \$49,006
 - c. \$56,205
 - d. \$68,208
 - e. \$112,410

APPENDIX: BAT MODEL

- a 76. Your firm needs \$135,000 a week to pay bills. The standard deviation of the weekly disbursements is \$12,000. The firm has established a lower cash balance limit of \$60,000. The applicable interest rate is 5 percent and the fixed cost of transferring funds is \$45. What is the opportunity cost of holding cash?
- a. \$2,810
 - b. \$3,091
 - c. \$3,372
 - d. \$4,215
 - e. \$5,620

APPENDIX: BAT MODEL

- d 77. Your firm spends \$110,000 a week to pay bills and maintains a lower cash balance limit of \$50,000. The standard deviation of your disbursements is \$15,000. The applicable interest rate is 5 percent and the fixed cost of transferring funds is \$50. What is your optimal initial cash balance based on the BAT model?
- a. \$53,479
 - b. \$55,829
 - c. \$83,229
 - d. \$106,958
 - e. \$111,658

APPENDIX: BAT MODEL

- c 78. Your firm spends \$110,000 a week to pay bills and maintain a lower cash balance limit of \$50,000. The standard deviation of your disbursements is \$15,000. The applicable interest rate is 5 percent and the fixed cost of transferring funds is \$50. What is your opportunity cost of holding cash based on the BAT model?
- a. \$2,309
 - b. \$2,578
 - c. \$2,674
 - d. \$2,691
 - e. \$2,709

APPENDIX: BAT MODEL

- c 79. Your firm spends \$110,000 a week to pay bills and maintain a lower cash balance limit of \$50,000. The standard deviation of your disbursements is \$15,000. The applicable interest rate is 5 percent and the fixed cost of transferring funds is \$50. What is your total cost of holding cash based on the BAT model?
- a. \$2,674
 - b. \$2,719
 - c. \$5,348
 - d. \$5,538
 - e. \$5,509

APPENDIX: BAT MODEL

- b 80. Your firm spends \$110,000 a week to pay bills and maintain a lower cash balance limit of \$50,000. The standard deviation of your disbursements is \$15,000. The applicable interest rate is 5 percent and the fixed cost of transferring funds is \$50. What is your optimal average cash balance based on the BAT model?
- a. \$52,667
 - b. \$53,479
 - c. \$53,618
 - d. \$53,998
 - e. \$54,007

APPENDIX: MILLER-ORR MODEL

- d 81. Your firm spends \$82,000 a week to pay bills and maintains a lower cash balance limit of \$40,000. The standard deviation of the disbursements is \$8,000. The applicable weekly interest rate is .07 percent and the fixed cost of transferring funds is \$55. What is your cash balance target based on the Miller-Orr model?
- a. \$40,778
 - b. \$42,667
 - c. \$46,067
 - d. \$55,564
 - e. \$61,712

APPENDIX: MILLER-ORR MODEL

- a 82. Your firm spends \$82,000 a week to pay bills and maintain a lower cash balance limit of \$40,000. The standard deviation of the disbursements is \$8,000. The applicable weekly interest rate is .07 percent and the fixed cost of transferring funds is \$55. What is your optimal upper cash limit based on the Miller-Orr model?
- a. \$86,693
 - b. \$87,119
 - c. \$87,238
 - d. \$88,009
 - e. \$88,236

APPENDIX: MILLER-ORR MODEL

- d 83. Your firm spends \$82,000 a week to pay bills and maintain a lower cash balance limit of \$40,000. The standard deviation of the disbursements is \$8,000. The applicable weekly interest rate is .07 percent and the fixed cost of transferring funds is \$55. What is your optimal average cash balance based on the Miller-Orr model?
- a. \$59,062
 - b. \$59,361
 - c. \$60,008
 - d. \$60,752
 - e. \$61,404

APPENDIX: MILLER-ORR MODEL

- a 84. Your firm spends \$21,000 a week to pay bills and maintain a lower cash balance limit of \$20,000. The standard deviation of the disbursements is \$5,000. The applicable weekly interest rate is .065 percent and the fixed cost of transferring funds is \$45. What is your cash balance target based on the Miller-Orr model?
- a. \$30,908
 - b. \$31,212
 - c. \$31,336
 - d. \$31,407
 - e. \$31,511

IV. ESSAYS**FLOAT**

85. Describe the various sources of float discussed in the chapter. What is the relevance of float and float management for the typical small firm? What about for a large Fortune 500 firm?

Float management is a double-edged sword; while we use float to our advantage, others use it to their advantage against us. Small firms sometimes find that their reliance on one or two large customers subjects them to unsavory cash management practices; at the same time, they are not large enough (nor unethical enough) to utilize similar practices in dealing with their own suppliers.

LOCKBOX SYSTEMS

86. Explain how a lockbox system operates and why a firm might consider implementing such a system.

A large firm may have more than 20 lockboxes across the country. At each of those sites, a representative from a local bank collects the checks and deposits them into the firm's account. The firm can then make transfers from the remote accounts into more centralized accounts. The system reduces mailing and processing times, and creates a one-time cash inflow for the firm.

DISBURSEMENT FLOAT

87. Suppose a firm with branches throughout the United States makes payments on its accounts by mailing checks from banks as distant from the payee as possible in order to maximize disbursement float. Is this wise? Is this ethical? Explain.

The firm should be concerned about whether or not it is making its payments on time. The system described is designed to maximize float which generally means that payments take longer to get to suppliers. The firm could end up receiving less generous terms from its suppliers if they consistently pay late. Whether this policy is ethical or not is debatable.

INVESTING IDLE FUNDS

88. A firm has excess idle cash due to seasonal fluctuations in cash flow. Management is considering investing the funds in 5-year municipal bonds issued by the local county government. What are the pros and cons of this strategy?

This choice violates most of what is considered desirable about marketable securities. First, the maturity is relatively long which raises questions about interest rate risk. Second, no information is given about default risk but it is a factor in municipal bond investing and the firm should consider this in its analysis. Third, marketability is a concern. We don't know the size of the municipality but municipal bonds in general are relatively illiquid making them a poor choice for parking excess cash. Finally, there may be some tax advantages to investing in these bonds but those advantages will most likely not offset the other concerns especially over the short-term.

DRAWING ON UNCOLLECTED FUNDS

89. As the financial manager for a large, regional firm you notice that your firm regularly draws on uncollected funds but your bank has not noticed, or, at least, has not objected. Some in your firm argue that this is a cheap source of financing and liquidity and encourage this practice. What are the implications of such action?

Regardless of what the bank does or does not say, drawing on uncollected funds is essentially illegal. Furthermore, there are serious ethical concerns since the firm is acting to secure what amounts to an interest-free loan from the bank in the amount it draws on the uncollected funds. The bottom line is probably an assessment of just how badly the firm wants to jeopardize its relationship with its bank.

INTERNET BANKING

90. The growth of the Internet has increased on-line retailing and banking. What are the implications for float management?

As consumers use on-line banking to make payments, disbursement float is decreased. For firms that sell products over the Internet, collection float may be significantly decreased. The impact on net float is thus unclear. This question leaves much to the student's imagination and knowledge of the current state of the Internet.

NPV OF FLOAT MANAGEMENT

91. Float management may provide only a minimal benefit to the firm. Given that there are generally other projects with positive net present values, why should a firm spend a lot of time on float management?

This question is designed to get students to think about the value of a managers' time and the trade-offs of time spent on one project versus another. Good students will provide a well-reasoned and thoughtful argument about the benefits to be derived from managing a firm's short-term financial affairs. In the end, float management may represent a significant savings to the firm.