Student name:\_\_\_\_\_\_\_\_\_\_

**MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.  
1)** Financial managers frequently broaden their definition of cash to include:

1) \_\_\_\_\_\_

A) currency, bank checking accounts, as well as stock and bond investments.   
 B) currency, bank checking accounts, and bond investments.  
 C) cash, bond investments, bank checking accounts, and short-term marketable securities.  
 D) currency, bank checking accounts, and short-term marketable securities.  
 E) cash and bank accounts only.

**2)** Determining the appropriate cash balance for a firm involves assessing the trade-off between:

2) \_\_\_\_\_\_

A) income and diversification.   
 B) the benefits and costs of liquidity.  
 C) balance sheet strength and transaction needs.  
 D) short-term and long-term investment returns.  
 E) cash needs and cash preferences.

**3)** An appropriate cash balance is reached when the:

3) \_\_\_\_\_\_

A) interest on any marketable security is maximized.   
 B) interest foregone from not investing in Treasury bills is minimized.  
 C) value of cash liquidity equals interest foregone on an equivalent amount of Treasury bills.  
 D) liquidity value is greater than the interest foregone on an equivalent amount of Treasury bills.  
 E) balance is maintained at a zero level.

**4)** If all outgoing cash transactions could be \_\_\_\_\_\_\_\_, firms would not need tohold any cash for transaction purposes.

4) \_\_\_\_\_\_

A) greater than total cash inflows   
 B) less than total cash inflows  
 C) separated from all incoming transactions  
 D) perfectly synchronized with cash inflows  
 E) performed electronically

**5)** Firms hold cash to satisfy the transaction motive. This means that cash is held to:

5) \_\_\_\_\_\_

A) fulfill disbursement requirements for normal operations only.   
 B) balance the flow between cash inflows and outflows only.  
 C) meet unexpected emergency cash needs.  
 D) fulfill disbursement requirements for normal operations, and balance the flow between cash inflows and outflows.  
 E) offset fees that would otherwise be charged by the firm’s bank.

**6)** Firms hold cash, in part, to satisfy compensating balance requirements. Compensating balances are cash balances held at:

6) \_\_\_\_\_\_

A) the firm, in excess of its transactions needs.   
 B) the firm, that are below that of its transactions needs.  
 C) the firm, in excess of its cash inflows.  
 D) commercial banks to pay implicitly for bank services.  
 E) commercial banks as emergency funds.

**7)** The cost of holding cash:

7) \_\_\_\_\_\_

A) is the opportunity cost of the lost investment income.   
 B) is zero because it is the most liquid asset a firm can hold.  
 C) decreases as cash holdings increase.  
 D) increases as market rates decline.  
 E) is irrelevant in today’s electronic world.

**8)** Most large firms hold a larger cash balance than most models imply because:

8) \_\_\_\_\_\_

A) it is too difficult to estimate the costs of security transactions.   
 B) banks are compensated by account balances for payment of services.  
 C) corporations have few bank accounts and it is difficult to manage their cash.  
 D) cash is costless and need not be managed closely.  
 E) the costs of holding cash for these firms is negligible.

**9)** The difference between available cash and book cash is called:

9) \_\_\_\_\_\_

A) float.   
 B) disbursement float.  
 C) surplus.  
 D) collection float.  
 E) the net deficit.

**10)** All the following actions can create disbursement float *except* the*:*

10) \_\_\_\_\_\_

A) payment of wages.   
 B) payment for raw materials.  
 C) disbursement of funds to a supplier.  
 D) distribution of cash dividends.  
 E) sale of an asset.

**11)** Checks written by a firm are said to generate \_\_\_ float.

11) \_\_\_\_\_\_

A) collection   
 B) ledger  
 C) disbursement  
 D) book  
 E) accounting

**12)** When a firm writes a check, there is an immediate decrease in the \_\_\_\_\_ balance, but no immediate change in the \_\_\_\_\_ balance.

12) \_\_\_\_\_\_

A) bank; collected   
 B) ledger; book  
 C) bank; ledger  
 D) book; bank  
 E) available; book

**13)** Collection float increases:

13) \_\_\_\_\_\_

A) as disbursement float decreases.   
 B) the bank balance.  
 C) the book balance.  
 D) the collected balance.  
 E) both book and bank balances.

**14)** Net collection float means the:

14) \_\_\_\_\_\_

A) book balance is greater than the ledger balance.   
 B) available balance is less than the book balance.  
 C) disbursement float equals the book cash.  
 D) disbursement float exceeds the collection float.  
 E) collection float equals the disbursement float.

**15)** With respect to float management, which one of the following statements is true?

15) \_\_\_\_\_\_

A) Float management is the practice of speeding up the disbursement of cash.   
 B) An objective of float management is the elimination of disbursement float.  
 C) An objective of float management is to reduce float by reducing sales.  
 D) Firms prefer net disbursement float over net collection float.  
 E) Float management is no longer needed.

**16)** Average daily float equals:

16) \_\_\_\_\_\_

A) Average daily receipts/Weighted average delay.   
 B) Annual sales/365.  
 C) Total receipts/Total days.  
 D) Total float × Total days.  
 E) Average daily receipts × Weighted average delay.

**17)** Collection float includes:

17) \_\_\_\_\_\_

A) availability delay and processing delay only.   
 B) billing time, mailing time, processing delay, and availability delay.  
 C) mailing time, processing delay, and availability delay.  
 D) availability delay only.  
 E) mailing time and processing delay only.

**18)** Which one of the following products probably has reduced collection time the most?

18) \_\_\_\_\_\_

A) Traditional lockboxes   
 B) Concentration accounts  
 C) Financial EDI  
 D) Zero-balance accounts  
 E) Depository transfer checks

**19)** Lockboxes can reduce \_\_\_\_\_\_\_\_ float by being located close to the source of payment.

19) \_\_\_\_\_\_

A) availability   
 B) mailing  
 C) in-house processing  
 D) disbursement  
 E) clearing

**20)** The fastest but most expensive way for a firm to transfer surplus funds from the local deposit bank to the concentration bank is:

20) \_\_\_\_\_\_

A) a depository transfer check.   
 B) a cashier’s check.  
 C) a wire transfer.  
 D) the firm’s in-house transfer system.  
 E) an automated clearinghouse transfer.

**21)** Which one of the following parties deposits the checks into the payee’s account when those checks are mailed to a traditional lockbox?

21) \_\_\_\_\_\_

A) Any postal employee   
 B) A specially designated postal employee  
 C) A bank employee  
 D) The payee  
 E) The payers

**22)** One primary reason concentration bank accounts are established is to:

22) \_\_\_\_\_\_

A) reduce default risk.   
 B) increase disbursement float.  
 C) control disbursements for a specific purpose.  
 D) pool funds.  
 E) replace traditional lockboxes.

**23)** With respect to a lockbox system of cash collections, which one of the following statements is correct?

23) \_\_\_\_\_\_

A) Mailing time is reduced while the collection time remains constant.   
 B) Electronic lockboxes have totally replaced traditional lockbox systems.  
 C) Checks can be deposited prior to the payments being applied to the customers’ accounts.  
 D) Mailing time is reduced but the processing delay is increased.  
 E) Checks are held by the bank until the payee firm approves them to start the check-clearing process.

**24)** With respect to zero-balance accounts, which one of the following statements is *false*?

24) \_\_\_\_\_\_

A) Zero-balance accounts are set up to process disbursements only.   
 B) Each zero-balance account maintains a minimal level of safety stock.  
 C) Funds are automatically transferred into the zero-balance account as checks are presented for payment.  
 D) Zero-balance accounts are frequently used for payroll disbursements.  
 E) The master and the zero-balance accounts are frequently located within the same bank.

**25)** Which one of the following practices is the best means of managing disbursements from an ethical, business, and economic point of view?

25) \_\_\_\_\_\_

A) Purposely mailing checks without a signature as a means of delaying payment   
 B) Delaying paying suppliers until 30 days past the due date of each invoice  
 C) Purposely mailing payments to suppliers from locations that maximize mailing time  
 D) Taking early payment discounts while paying bills after their due dates  
 E) Funding your bank account with the minimum amount needed to pay bills in a timely manner

**26)** If a firm has seasonal sales, then it is highly likely the firm will:

26) \_\_\_\_\_\_

A) hold extra excess cash throughout the year.   
 B) borrow short term for part of the year and invest in marketable securities the rest of the year.  
 C) never be able to invest any excess funds.  
 D) continually have short-term loans outstanding.  
 E) have less volatile cash flows than a comparable firm with constant sales.

**27)** Short-term marketable securities generally have:

27) \_\_\_\_\_\_

A) high maturity risk.   
 B) little, if any, marketability.  
 C) significant default risk.  
 D) a high level of liquidity.  
 E) maturities between one and two years.

**28)** Money market securities are best defined as securities:

28) \_\_\_\_\_\_

A) purchased through a bank.   
 B) that are risk-free.  
 C) with maturities of one year or less.  
 D) that are purchased with cash and held until maturity.  
 E) that are held for one week or less.

**29)** Which one of the following securities is a money-market security that has limited marketability?

29) \_\_\_\_\_\_

A) Jumbo certificates of deposit (CD’s)   
 B) Commercial paper  
 C) Common stock  
 D) U.S. Treasury bills  
 E) Ordinary preferred stock

**30)** Money market preferred stock offers competitive rates of return similar to traditional money-market instruments but:

30) \_\_\_\_\_\_

A) forfeits the tax benefits normally provided to corporate shareholders.   
 B) still provides the corporate investor with the tax exclusion on dividend income.  
 C) has a fixed rate of dividend income.  
 D) is only an overnight investment.  
 E) has highly volatile stock prices due to the fixed coupon.

**31)** Probably the most sensible cash management policy would be to maintain:

31) \_\_\_\_\_\_

A) sufficient cash on hand to meet all ordinary business needs plus some excess cash to invest in marketable securities as a precautionary measure.   
 B) about 90 percent of the firm’s ordinary cash needs in cash and delay payment on the remaining 10 percent.  
 C) enough cash on hand to meet any potential demand for cash.  
 D) a zero-cash balance and transfer funds semi-monthly to pay bills.  
 E) twice the amount of cash on hand that would be typically indicated based on the firm’s normal cash flows.

**32)** U.S. Treasury bills:

32) \_\_\_\_\_\_

A) are subject to the same risks as short-term tax exempts.   
 B) all have initial maturities of 90 days or less.  
 C) are issued for time periods as short as one week.  
 D) must be held to maturity and may not be resold.  
 E) are sold at weekly auctions.

**33)** Which one of the following money market securities generally has the shortest life?

33) \_\_\_\_\_\_

A) Repurchase agreements   
 B) Jumbo certificates of deposit  
 C) Money market preferred stock  
 D) Commercial paper  
 E) U.S. Treasury bills

**34)** The 2017 Tax Cuts and Jobs Act set the dividend exclusion for dividend income received by corporate shareholders at \_\_\_ percent (or more).

34) \_\_\_\_\_\_

A) 50   
 B) 0  
 C) 25  
 D) 70  
 E) 33

**35)** Which one of the following is the most marketable and has the least default risk?

35) \_\_\_\_\_\_

A) Money market preferred stock   
 B) Commercial paper  
 C) Municipal bonds  
 D) Repurchase agreements  
 E) U.S. Treasury bills

**36)** On an average day, Amaranth writes checks totaling $3,000. These checks take an average of 4 days to clear. Also on an average day, Amaranth receives checks totaling $3,500 which take 2 days to clear. The cost of debt is 6.8 percent. What is the firm’s disbursement float?

36) \_\_\_\_\_\_

A) −$7,000   
 B) −$5,000  
 C) $12,000  
 D) $5,000  
 E) $7,000

**37)** This morning, Pineapple Hospitality had both a book and a bank balance of $1,500. Today, the firm received 20 checks from customers that averaged $110 each. The funds from these checks will be delayed by one day, which will cover both the processing and availability delays. Wilson's also received $4,000 of payments from customers who are billed and pay electronically. The electronic payments are available immediately. What is the firm's collection float as of the end of this day?

37) \_\_\_\_\_\_

A) −$6,200   
 B) −$2,200  
 C) −$1,200  
 D) −$1,800  
 E) −$3,700

**38)** Varela Bikes has a checkbook balance of $107,232. This morning, the firm’s account balance on the bank’s website is $131,318. What is the net float? Is it a collection float or a disbursement float?

38) \_\_\_\_\_\_

A) −$24,086; collection float   
 B) −$24,086; disbursement float  
 C) $24,086; collection float  
 D) $24,086; disbursement float  
 E) $0; neither collection nor disbursement float

**39)** The average daily receipts at Bailey Hardware are $4,320. These receipts are available, on average, after 1.5 days. What is the NPV of eliminating the float if the cost to do so is $2,600?

39) \_\_\_\_\_\_

A) $3,880   
 B) $1,720  
 C) $2,580  
 D) $6,480  
 E) $4,320

**40)** Avery Timekeeping receives four checks per month. The amounts of the checks and their respective processing and availability delays are as follows:

|  |  |  |
| --- | --- | --- |
|  | **Amount** | **Average Delay** |
| **Check 1** | $ 1,500 | 1.2 days |
| **Check 2** | $ 2,500 | 2.4 days |
| **Check 3** | $ 1,000 | 1.6 days |
| **Check 4** | $ 3,000 | 2.5 days |

What is the weighted average delay?

40) \_\_\_\_\_\_

A) 1.96 days   
 B) 1.93 days  
 C) 2.03 days  
 D) 2.11 days  
 E) 2.07 days

**41)** Dog Trainingby Marissa receives the same checks each month from its customers. Of these monthly checks, 48 are for $82.60 each, 15 are for $71.50 each, and 9 are for $40.70 each. The delay for the $82.60 checks is 1.8 days, for the $71.50 checks 1.1 days, and for the $40.70 checks 1.3 days. Calculate the average daily float. Assume a 30-day month.

41) \_\_\_\_\_\_

A) $293.09   
 B) $287.46  
 C) $309.10  
 D) $299.47  
 E) $358.02

**42)** Melgar Engineering receives three checks per month. The first check is for $194,000 and takes two days to clear. The second check is for $318,000 and clears in one day. The third check is for $38,000 and clears in 2.5 days. What is the weighted average delay, the average daily receipts, and the average daily float? Assume a 30-day month.

42) \_\_\_\_\_\_

A) 1.83 days; $16,667; $23,333   
 B) 1.46 days; $18,667; $27,333  
 C) 1.83 days; $18,447; $26,700  
 D) 1.46 days; $18,333; $26,700  
 E) 1.51 days; $18,447; $27,800

**43)** Schnee Ice Cream receives three checks per month. The first check averages $842,000 and clears in 1.2 days. The second check averages $318,000 and clears in .7 days. The third check averages $465,000 and clears in 2 days. What is the average daily float? Assume a 30-day month.

43) \_\_\_\_\_\_

A) $69,600   
 B) $72,100  
 C) $73,600  
 D) $74,500  
 E) $68,900

**44)** Maatz Fitness just received a check from a customer for $1,289 that it has recorded in its checkbook but has not yet deposited this check into the bank. After recording this check, the firm has a bank balance of $16,218 and a book balance of $16,309. All the firm's other deposits have cleared and those funds are currently available. What is the amount of the disbursement float?

44) \_\_\_\_\_\_

A) $91   
 B) $246  
 C) $1,198  
 D) $2,487  
 E) $1,807

**45)** Weng Window Treatments receives five checks per month. These checks average $811, $416, $6,420, $22,900, and $8,700. The three larger sized check amounts are available after 1.5 days while the two smaller check amounts are available after one day. What is the weighted average delay?

45) \_\_\_\_\_\_

A) 1.48 days   
 B) 1.39 days  
 C) 1.46 days  
 D) 1.37 days  
 E) 1.00 day

**46)** Fly-By-Night Airlines currently has $2.4 million on deposit with its bank. It also has a book balance of $2.4 million. What will be its bank and book balances as soon as it writes a check for $1.1 million to pay its fuel bill?

46) \_\_\_\_\_\_

A) $2.4 million; $1.3 million   
 B) $2.4 million; $2.4 million  
 C) $1.3 million; $2.4 million  
 D) $1.3 million; $1.3 million  
 E) $1.85 million; $1.85 million

**47)** During the month, May Electric receives four checks in the amounts of $100, $325, $200, and $500, respectively. They are delayed for 1.6 days, 2.1 days, 2.6, and 1 day, respectively. What is the average daily collection float? Assume a 30-day month.

47) \_\_\_\_\_\_

A) $74.93   
 B) $63.80  
 C) $62.08  
 D) $59.47  
 E) $68.15

**48)** The Mesa Bank is offering your firm the free use of their lockbox services. They estimate that you can reduce your average mail time by 2 days and they can save you a combined clearing and processing time of 1.5 days by putting the checks into the clearing system sooner. Your firm receives 320 checks a day with an average value of $2,500 each. The current T-Bill rate is .015 percent per day. Assume a 365-day year. What is the annual amount of income your firm can earn if it installs this service?

48) \_\_\_\_\_\_

A) $15,300   
 B) $14,800  
 C) $16,400  
 D) $153,300  
 E) $148,700

**49)** Prime Bank is offering your company the use of their lockbox services. They estimate that you can reduce your average mail time by 1.5 days and they can save you a combined clearing and processing time of 1 day by putting the checks into the clearing system sooner. Your firm receives 198 checks a day with an average value of $2,300 each. The current T-Bill rate is .011 percent per day. Assume a 365-day year. Prime Bank will charge your firm an annual fee of $27,500 plus $.20 per check. What is the annual net savings from installing this system?

49) \_\_\_\_\_\_

A) $4,115.36   
 B) $3,480.00  
 C) $2,816.00  
 D) $3,756.78  
 E) $4,108.29

**50)** Community Financial provides lockbox services. They estimate that your firm can reduce its average collection mail time by 1.6 days and the clearing and processing time by 1.2 days by implementing their system. Your firm receives 74 checks a day with an average value of $9,750 each. The current T-Bill rate is .014 percent per day. Assume a 365-day year. What is the net amount of annual income your firm can earn if it installs this service at an annual cost of $48,000?

50) \_\_\_\_\_\_

A) $65,675.00   
 B) $62,640.00  
 C) $56,408.17  
 D) $55,232.22  
 E) $58,746.20

**51)** Center Bank provides lockbox services. They estimate that you can reduce your average mail time by 2.2 days and your combined clearing and processing time by .75 days by implementing their system. Your firm receives 65 checks a day with an average value of $298 each. The current T-Bill rate is .01 percent per day. Assume a 365-day year. The bank will charge your firm $.15 per check. What is the annual net savings from installing this system?

51) \_\_\_\_\_\_

A) $1,215.84   
 B) −$1,022.15  
 C) $548.32  
 D) −$1,473.09  
 E) $718.28

**52)** Uptown Bank provides lockbox services. They estimate that you can reduce your average mail time by 1.6 days and your combined clearing and processing time by .5 days by implementing their system. Your firm receives 654 checks a day with an average value of $975 each. The current T-Bill rate is .009 percent per day. Assume a 365-day year. The bank will charge your firm $.17 per check. What is the net present value from installing this system?

52) \_\_\_\_\_\_

A) $105,215.84   
 B) $100,022.15  
 C) $98,548.32  
 D) $103,731.67  
 E) $102,718.28

**53)** At the beginning of the day, a company had a ledger balance and available balance of $3,860. During the day, the company wrote three checks for $295,$660, and $920. The company also deposited checks for $435 and $875. What is the company's collection float?

53) \_\_\_\_\_\_

A) $1,310   
 B) $3,185  
 C) $2,550  
 D) $1,875  
 E) $565

**54)** On an average day, a company writes 53 checks worth a total of $8,050 that clear in 2.5 days. The company also collects 65 checks worth atotal of $10,190 that clear in 2 days. What is the company's average collection float?

54) \_\_\_\_\_\_

A) $18,240   
 B) $10,190  
 C) $20,380  
 D) $20,125  
 E) $8,050

**55)** Madison Corner writes 29 checks a day for an average amount of $493 each. These checks generally clear the bank 2.75 days after they are written. In addition, the firm generally receives 66 checks with an average amount of $556 each. Deposited amounts are available after an average of 2.25 days. What is the amount of the firm's collection float?

55) \_\_\_\_\_\_

A) $39,317   
 B) $82,566  
 C) $36,696  
 D) $43,249  
 E) $14,297

**56)** At the beginning of the day, a company has a cash balance of $11,100 and no float. During the day, the company wrote three checks for $570,$905, and $1,270. The company also deposited checks for $1,135 and $1,740. What is the company's disbursement float?

56) \_\_\_\_\_\_

A) $2,745   
 B) $130  
 C) $2,875  
 D) $5,620  
 E) $8,225

**57)** On an average day, a company writes 56 checks worth a total of $6,375 that clear in 2.25 days. The company also collects 78 checks worth atotal of $8,840 that clear in 2 days. What is the company's average disbursement float?

57) \_\_\_\_\_\_

A) $8,840   
 B) $14,344  
 C) $17,680  
 D) $6,375  
 E) $8,840

**58)** Marston Corporation writes 30 checks a day for an average amount of $406 each. These checks generally clear the bank 3.5 days after they are written. In addition, the firm generally receives 42 checks with an average amount of $508 each. Deposited amounts are available after an average of 3 days. What is the firm's disbursement float?

58) \_\_\_\_\_\_

A) $21,336   
 B) $12,180  
 C) $21,378  
 D) $64,008  
 E) $42,630

**59)** On a typical day, a company writes 47 checks worth a total of $8,455 that clear in 2.75 days. The company also collects 59 checks worth atotal of $10,220 that clear in 2.25 days. Is this a collection or disbursement float? What is the amount of the float?

59) \_\_\_\_\_\_

A) A disbursement float of $1,765   
 B) A disbursement float of $256  
 C) A collection float of $1,765  
 D) A collection float of $256  
 E) A collection float of $413

**60)** On a typical day, a company writes 76 checks worth a total of $10,620 that clear in 3.25 days. The company also collects 89 checks worth atotal of $14,695 that clear in 2.75 days. Is this a collection or disbursement float? What is the float value?

60) \_\_\_\_\_\_

A) A collection float of $4,075   
 B) A disbursement float of $5,896  
 C) A disbursement float of $4,075  
 D) A collection float of $5,896  
 E) A collection float of $6,053

**61)** Ellcrys Corporation writes 51 checks a day for an average amount of $457 each. These checks generally clear the bank 2.25 days after they are written. In addition, the firm generally receives 48 checks with an average amount of $502 each. Deposited amounts are available after an average of 1.75 days. Is this a disbursement or collection float? What is the value of the float?

61) \_\_\_\_\_\_

A) A disbursement float of $12,068   
 B) A disbursement float of $8,126  
 C) A collection float of $10,273  
 D) A collection float of $12,068  
 E) A disbursement float of $10,273

**62)** Shannara Manufacturing writes 30 checks a day for an average amount of $497 each that generally clear 3 days after they are written. In addition, the firm generally receives 38 checks each day with an average amount of $562 each that are available after 2.5 days. Is this a collection or disbursement float? What is the amount of the float?

62) \_\_\_\_\_\_

A) A collection float of $8,660   
 B) A collection float of $10,455  
 C) A disbursement float of $10,455  
 D) A collection float of $9,554  
 E) A disbursement float of $8,660

**63)** Hoyes Lumber generally receives three checks per month. A check for $11,440 clears in 3 days, a check for $6,575 clears in 2 days, and a check for $7,790 clears in 3 days. Assuming 30 days in each month, what is the average daily float?

63) \_\_\_\_\_\_

A) $1,984.17   
 B) $2,199.17  
 C) $2,361.33  
 D) $286.72  
 E) $860.17

**ESSAY. Write your answer in the space provided or on a separate sheet of paper.  
64)** The net float of a firm is made up of disbursement float and collection float. Identify and describe the components of both disbursement and collection float.

**65)** Explain repurchase agreements and the role they can play in a firm’s everyday operations.

**66)** Explain why money market preferred stock appeals to corporations.

**Answer Key**Test name: Chapter 27

1) D

2) B

3) C

4) D

5) D

6) D

7) A

8) B

9) A

10) E

11) C

12) D

13) C

14) B

15) D

16) E

17) A

18) C

19) B

20) C

21) C

22) D

23) C

24) B

25) E

26) B

27) D

28) C

29) B

30) B

31) A

32) E

33) A

34) A

35) E

36) C

Disbursement float = Firm’s available balance − Firm’s book balance  
   
 This can also be calculated as:  
   
 Disbursement float = Number of days × (Daily amount of checks written but not cleared)  
 Disbursement float = 4($3,000)  
 Disbursement float = $12,000

37) B

Collection float = Firm’s available balance − Firm’s book balance  
 Collection float = ($1,500 + 4,000) − [$1,500 + 20($110) + $4,000]  
 Collection float = −$2,200

38) D

Net float = Firm’s available balance − Firm’s book balance  
 Net float = $131,318 − 107,232  
 Net float = $24,086  
   
 Since the net float is positive, it is disbursement float.

39) A

NPV = 1.5($4,320) − 2,600  
 NPV = $3,880

40) D

Total receipts = $1,500 + 2,500 + 1,000 + 3,000  
 Total receipts = $8,000  
   
 Weighted average delay = (1.5/8)(1.2) + (2.5/8)(2.4) + (1/8)(1.6) + (3/8)(2.5)  
 Weighted average delay = 2.11 days

41) A

Total float = 48($82.60)(1.8) + 15($71.50)(1.1) + 9($40.70)(1.3)  
 Total float = $8,792.58  
   
 Average daily float = $8,792.58/30  
 Average daily float = $293.09

42) D

Total receipts = $194,000 + 318,000 + 38,000  
 Total receipts = $550,000  
   
 Weighted average delay = ($194,000/$550,000)(2) + ($318,000/$550,000)(1) + ($38,000/$550,000)(2.5)  
 Weighted average delay = 1.4564 days, or 1.46 days  
   
 Average daily receipts = Total receipts/Total days  
 Average daily receipts = $550,000/30  
 Average daily receipts = $18,333.33, or $18,333  
   
 Average daily float = Average daily receipts (Weighted average delay)  
 Average daily float = $18,333.33(1.4564)  
 Average daily float = $26,700

43) B

Total float = 1.2($842,000) + .7($318,000) + 2($465,000)  
 Total float = $2,163,000  
   
 Average daily float = $2,163,000/30  
 Average daily float = $72,100

44) C

We can eliminate the collection float as follows:  
   
 Book balance prior to last deposit = $16,309 − 1,289  
 Book balance prior to last deposit = $15,020  
   
 Disbursement float = Firm’s available balance − Firm’s book balance  
 Disbursement float = $16,218 − 15,020  
 Disbursement float = $1,198

45) A

Total receipts = $811 + 416 + 6,420 + 22,900 + 8,700  
 Total receipts = $39,247  
   
 Weighted average delay = [($6,420 + 22,900 + 8,700)/$39,247](1.5) + [($811 + 416)/$39,247](1)  
 Weighted average delay = 1.48 days

46) A

Bank cash = $2.4 − 0.0  
 Bank cash = $2.4 million  
   
 Book cash = $2.4 − 1.1  
 Book cash = $1.3 million

47) C

Total float = 1.6($100) + 2.1($325) + 2.6($200) + 1($500)  
 Total float = $1,862.50  
   
 Average daily float = $1,862.50/30  
 Average daily float = $62.08

48) D

Float reduction days = 2 + 1.5  
 Float reduction days = 3.5 days  
   
 Dollars of float saved = 3.5(320)($2,500)  
 Dollars of float saved = $2,800,000  
   
 Annual income = .00015(365)($2,800,000)  
 Annual income = $153,300

49) D

Annual cost = $27,500 + 198(365)($.20)  
 Annual cost = $41,954  
   
 Float reduction days = 1.5 + 1  
 Float reduction days = 2.5 days  
   
 Dollars of float saved = 2.5(198)($2,300)  
 Dollars of float saved = $1,138,500  
   
 Annual income = .00011(365)($1,138,500)  
 Annual income = $45,710.78  
   
 Annual net savings = $45,710.78 − 41,954.00  
 Annual net savings = $3,756.78  
   
 Your firm should install the lockbox system.

50) D

Float reduction days = 1.6 + 1.2  
 Float reduction days = 2.8 days  
   
 Dollars of float saved = 2.8(74)($9,750)  
 Dollars of float saved = $2,020,200  
   
 Net annual income = .00014(365)($2,020,200) − $48,000  
 Net annual income = $55,232.22

51) D

Annual cost = 65(365)($.15)  
 Annual cost = $3,558.75  
   
 Float reduction days = 2.2 + .75  
 Float reduction days = 2.95 days  
   
 Dollars of float saved = 2.95(65)($298)  
 Dollars of float saved = $57,141.50  
   
 Annual income = .0001(365)($57,141.50)  
 Annual income = $2,085.67  
   
 Annual net savings = $2,085.67 − 3,558.75  
 Annual net savings = −$1,473.09  
   
 Your firm should not install the lockbox system.

52) D

PV = (1.6 + .5)(654)($975)  
 PV= $1,339,065  
   
 Daily cost = 654($.17)  
 Daily cost = $111.18  
   
 NPV = $1,339,065 − $111.18/.00009  
 NPV = $103,731.67

53) A

Collection float = $435 + 875  
 Collection float = $1,310

54) C

Collection float = $10,190 × 2  
 Collection float = $20,380

55) B

Collection float = 66 × $556 × 2.25  
 Collection float = $82,566

56) A

Disbursement float = $570 + 905 + 1,270  
 Disbursement float = $2,745

57) B

Disbursement float = $6,375 × 2.25  
 Disbursement float = $14,344

58) E

Disbursement float = 30 × $406 × 3.5  
 Disbursement float = $42,630

59) B

Disbursement float = $8,455 × 2.75  
 Disbursement float = $23,251  
   
 Collection float = $10,220 × 2.25  
 Collection float = $22,995  
   
 This is a disbursement float of $23,251 − 22,995 = $256

60) D

Disbursement float = $10,620 × 3.25  
 Disbursement float = $34,515  
   
 Collection float = $14,695 × 2.75  
 Collection float = $40,411  
   
 This is a collection float of $40,411 − 34,515 = $5,896.

61) E

Disbursement float = 51 × $457 × 2.25  
 Disbursement float = $52,441  
   
 Collection float = 48 × $502 × 1.75  
 Collection float = $42,168  
   
 This is a disbursement float of $52,441 − 42,168 = $10,273.

62) A

Disbursement float = 30 × $497 × 3  
 Disbursement float = $44,730  
   
 Collection float = 38 × $562 × 2.5  
 Collection float = $53,390  
   
 This is a collection float of $53,390 − 44,730 = $8,660.

63) C

Average daily float = [3($11,440) + 2($6,575) + 3($7,790)]/30  
 Average daily float = $2,361.33

64) There are three components of float:  
 1.1) Mail float; time that elapses while a payment is in the mail system  
 2.2) Processing float; time it takes the receiving firm to process incoming mail, prepare the bank deposit, and take the deposit to the bank  
 3.3) Availability float; time between the depositing of a check and the time when the funds become available for use  
   
 Disbursement float includes: 1.1) Mail float  
 2.2) Processing float  
 3.3) Availability float  
   
 Collection float includes: 1.1) Processing float  
 2.2) Availability float

65) A repurchase agreement is an agreement whereby a firm can purchase government securities (generally U.S. T-bills) with a simultaneous agreement to resell those same securities at a higher price the following day or shortly thereafter. Repurchase agreements allow a firm to earn income on its excess cash on a daily basis. For example, if a firm realizes in the afternoon that it has an extra $165,000 in its bank account, it can invest those funds overnight. Or if it’s Friday, it can invest those funds until the following Monday. While it may not seem like the firm earns a lot on a single day, if you consider the annual earnings involved, it becomes a worthwhile exercise for many firms.

66) Money market preferred stock offers the same tax advantages to a corporation as traditional preferred stock. That is, 50 percent (or more) of the dividend income received is tax exempt. Money market preferred stock differs from traditional preferred stock because it has a variable dividend rate which is reset generally every 49 days. By floating the dividend rate the value of the preferred stock becomes more stable. Thus, corporations favor this as a short-term investment as it provides a tax benefit which increases aftertax earnings without incurring a lot of principal fluctuation.