Chapter 8—Internal Control and Cash

CHAPTER OVERVIEW

In Chapter 7, you learned about an accounting information system. This chapter follows that discussion by introducing you to internal control and the processes a business follows to control the organization’s assets. As cash is the most liquid asset, this chapter applies internal control concepts to cash. However, internal control applies to all assets—topics covered in the next three chapters. The learning objectives for this chapter are to

1. Define internal control.
2. Describe good internal control procedures.
3. Prepare a bank reconciliation and related journal entries.
4. Apply internal controls to cash receipts.
5. Apply internal controls to cash payments.

CHAPTER REVIEW

Objective 1 - Define internal control.

Internal control is a system of methods and procedures designed to 1) ensure accurate and reliable accounting records., 2) prevent and detect fraud 3) safeguard assets 4) maintain reliable control systems

Objective 2 – Describe good internal control procedures.

An effective system of internal control has the following characteristics:

1. **Competent, reliable, and ethical personnel.** Paying competitive salaries, training people thoroughly, and providing adequate supervision help to promote competence.
2. **Assignment of responsibilities.** All duties to be performed must be identified, and responsibility for the performance of those duties must be assigned to appropriate people.
3. **Proper authorization.** An organization generally has a written set of rules that outlines approved procedures. Proper authorization must be obtained for deviations from standard policies.
4. **Separation of duties.** Separation of duties is designed to limit the possibility of fraud or theft in the handling of assets. The company must have:
   a) separation of operations from accounting
   b) separation of the custody of assets from accounting
   c) separation of the authorization of transactions from the custody of related assets
   d) separation of duties within the accounting function

5. **Internal and External Audits**
   Auditors evaluate the system of internal control to estimate the reliability of the accounting systems. Auditors also help to spot areas where improvements in internal control can be made. Internal auditors are employees of the company. External auditors are employed by public accounting firms and are hired by a business to audit its books.

6. **Documents and Records**
   Business documents and records are designed according to each company's needs. Source
documents and records include sales invoices, purchase orders, and special journals. Good internal control requires documents to be pre-numbered. A gap in the numbered sequence will call attention to a missing document.

7. **Electronic Devices and Computer Controls**
   A common practice for many retailers today is to use electronic sensors to protect inventory from theft. The sensor is removed at the checkout.

8. **Other Controls**
   Additional controls include use of fireproof vaults for cash and other important documents, purchasing fidelity bonds to protect the business against employee theft, and using point-of-sale terminals to capture sales transaction data.

The growing use of the Internet as a medium for business transactions (E-commerce) has created additional internal control issues. Some of these are stolen credit card numbers, computer viruses and Trojan horses, and the impersonation of companies. Companies attempt to limit the potential damage caused by these through the use of encryption, firewalls, and other methods. Unfortunately, no system is perfect as evidenced by the frequent stories of yet another hacker accessing information previously thought to be secure. Electronic data processing auditors (for computer systems).

The limitations of an internal control system are determined by the opportunities available for collusion and the resources that management devotes to the system. Collusion between two or more people working together to defraud the firm may go undetected by the system of internal control. Internal control must be designed and judged in light of the costs and the benefits.

Using a bank account promotes internal control over cash. For accounting purposes, cash includes currency, coins, cheques, money orders, and bank accounts. Banks safeguard cash and provide detailed records of transactions. Cash is the most common means of exchange, and it is also the most tempting asset for theft.

Documents used to control bank accounts include signature cards, deposit tickets, cheques, and bank statements. Banks usually send monthly statements to depositors. The bank statement shows the beginning balance in the account, all transactions recorded during the month, and the ending balance. Some banks also return canceled cheques with the statement.

**Electronic Funds Transfer (EFT)** is a system that relies on electronic impulses to account for cash transactions. EFT systems reduce the cost of processing cash transactions by reducing the documentary evidence of transactions. This lack of documentation poses a challenge to managers and auditors to enforce the internal control system.

**Bank reconciliations** are necessary because there are usually differences between the time that transactions are recorded on a business's books and the time that those transactions are recorded by the bank. For example, if you mail a cheque to a supplier on the last day of the month, you will record it on that day. However, the cheque will not clear your bank until the supplier has received it and deposited it in its bank, several days later.
Objective 3 - Prepare a bank reconciliation and related journal entries.

The general format for a bank reconciliation is:

<table>
<thead>
<tr>
<th>BANK</th>
<th>BOOKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance per bank statement</td>
<td>Balance, last day of month (trial balance of general ledger)</td>
</tr>
<tr>
<td>+ Deposits in transit</td>
<td>+ Bank collections</td>
</tr>
<tr>
<td>- Outstanding cheques</td>
<td>+ Interest paid on deposits</td>
</tr>
<tr>
<td>± Correction of bank errors</td>
<td>- Service charge</td>
</tr>
<tr>
<td></td>
<td>± Correction of book errors</td>
</tr>
</tbody>
</table>

Adjusted bank balance = Adjusted book balance

Adjustments to the bank balance never require preparation of journal entries. Adjustments to the bank balance include the following items:

1. Deposits in transit have been recorded by the company, but not by the bank. There is often a time lag of a day or two until the deposit is sent to the bank and posted by the bank.
2. Outstanding cheques are cheques issued by the company and recorded on its books, but the cheques have not yet been paid by the bank. There is a time lag of several days until the cheques are cashed or deposited by the payee and sent to the business’s bank to be paid.
3. Corrections of bank errors are the responsibility of the bank. The bank should be notified, and the corrections should appear on the next statement.

Adjustments to the books always require preparation of journal entries. Adjustments to the book balance include the following items:

1. The bank collects money on behalf of depositors. Examples are a lock-box system where customers pay directly to the bank account. A bank may also collect on a note receivable for the depositor. The bank will notify the depositor of these collections on the bank statement. The journal entry for the collection of a note receivable and the related interest is:

   Cash XXX
   Note Receivable XX
   Interest Revenue (if applicable) X

2. Interest revenue is sometimes paid on the chequing account. The journal entry to record the interest is:

   Cash XX
   Interest Revenue XX

3. Service charges are the bank’s fees for processing transactions. The journal entry for a service charge is:

   Miscellaneous Expense X
   Cash X

4. Nonsufficient funds (NSF) cheques are customer cheques that have been returned by the customer’s bank because the customer’s account did not have sufficient funds to cover the amount of the cheque.
Cheques may also be returned if the maker’s account has closed, the date is stale, the signature is not authorized, the cheque has been altered, or the cheque form is improper. The amount of returned cheques is subtracted from the book balance and the following journal entry is made:

\[
\begin{align*}
\text{Accounts Receivable} & \quad XX \\
\text{Cash} & \quad XX
\end{align*}
\]

5. The cost of printing cheques is handled like a service charge. The journal entry is:

\[
\begin{align*}
\text{Miscellaneous Expense} & \quad XX \\
\text{Cash} & \quad XX
\end{align*}
\]

6. Errors on the books must be handled on a case by case basis. If cheques are recorded on the books for the wrong amount, then an entry must be prepared to correct the original entry.

Study Exhibit 8-6 of the text carefully. Be sure you understand the components of a bank reconciliation and the journal entries (page 400 of the text) needed to correct the Cash account balance.

**Objective 4 - Apply internal controls to cash receipts.**

The objective of internal control over cash receipts is to ensure that all cash is deposited in the bank and recorded correctly in the company’s accounting records.

A cash register is a good device for management control over cash received in a store. Positioning the machine so that customers see the amounts rung up discourages cashiers from overcharging customers and pocketing the excess over actual prices. Issuing receipts requires cashiers to record the sale. Comparing actual receipts to control tapes maintained by the machine discourages theft.

For payments received from customers by mail, separation of duties among different people promotes good internal control. The mail room clerk should open all mail and record incoming payments. The mail room should deliver cheques to the cashier for deposit, and send remittance advices to the accounting department for posting. Comparison of mail room totals, cashier totals, and accounting totals should be made daily.

Where large numbers of cash transactions occur, there is often a small difference between actual cash received and cash recorded. An account entitled **Cash Short and Over** is used to account for such differences. The account is debited for cash shortages and credited for cash overages. An example of the journal entry to record an overage is:

\[
\begin{align*}
\text{Cash} & \quad 20,014 \\
\text{Cash Short and Over} & \quad 14 \\
\text{Sales} & \quad 20,000
\end{align*}
\]

A debit balance in Cash Short and Over appears on the income statement as a miscellaneous expense; a credit balance in Cash Short and Over appears as Other Revenue. A large debit or credit balance in the account (representing shortage or overage) should be investigated promptly. Review Exhibit 8-9 in text for a summary of internal controls over cash receipts.

**Objective 5 - Apply internal controls to cash payments.**
Payment by cheque is a good control over cash disbursements. However, before a cheque can be issued, additional control procedures have occurred. For instance, companies require approved purchase orders before goods and/or services can be acquired, receiving reports verifying that goods received conform to the purchase order, an invoice which agrees with both the purchase order and receiving report, and, finally, an authorized cheque in payment of the invoice. Additionally, many companies require two signatures before a cheque can be sent. (See Exhibit 8-3 in your text.)

Businesses keep a petty cash account to have cash on hand for minor expenses which do not warrant preparing a cheque. Such expenses include taxi fares, local delivery costs, and small amounts of office supplies.

Suppose a petty cash fund of $200 is established. The cash is placed under the control of a custodian and the following entry is made:

\[
\begin{align*}
\text{Petty Cash} & \quad 200 \\
\text{Cash} & \quad 200
\end{align*}
\]

This type of entry is also used to increase the amount in the fund, say from $200 to $300:

\[
\begin{align*}
\text{Petty Cash} & \quad 100 \\
\text{Cash} & \quad 100
\end{align*}
\]

Note that once the fund is established, no entry is made to the Petty Cash account except to change the total amount in the fund.

Petty cash is disbursed using petty cash tickets, which document the payments. Cash on hand plus the total of the petty cash tickets should always equal the fund balance. This is referred to as an imprest fund. If the fund comes up short, debit Cash Short and Over. If the opposite occurs, Cash Short and Over should be credited.

A petty cash fund must be periodically replenished, particularly on the balance sheet date. A cheque is drawn for the amount of the replenishment. An entry is made as follows:

\[
\begin{align*}
\text{Various accounts listed on petty cash tickets} & \quad \text{XX} \\
\text{Cash} & \quad \text{XX}
\end{align*}
\]

Note that the expenses on the petty cash tickets are recorded in the journal when the fund is replenished.
Objective 6 - Make ethical business judgments.

Most businesses have codes of ethics to which their employees are expected to conform; in addition, each of the three bodies of professional accountants in Canada have established rules of professional conduct that their members must adhere to. In many situations, the ethical course of action is clear. However, when this is not the case, the following steps may prove helpful:

1. Determine the facts
2. Identify the ethical issues
3. Specify the alternatives
4. Identify the people involved
5. Assess the possible consequences
6. Make a decision

Review the Decision Guidelines at the end of Chapter 8 (page 412).
TEST YOURSELF

All the self-testing materials in this chapter focus on information and procedures that your instructor is likely to test in quizzes and examinations.

I. Matching  Match each numbered term with its lettered definition.

<table>
<thead>
<tr>
<th>Numbered Term</th>
<th>Lettered Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. external auditors</td>
<td>A. a deposit recorded by the company but not by its bank</td>
</tr>
<tr>
<td>2. firewall</td>
<td>B. a cheque for which the payer’s bank account has insufficient money to pay the cheque</td>
</tr>
<tr>
<td>3. bank statement</td>
<td>C. a cheque issued by a company and recorded on its books but not yet paid by its bank</td>
</tr>
<tr>
<td>4. virus</td>
<td>D. a document authorizing a cash disbursement</td>
</tr>
<tr>
<td>5. electronic funds transfer</td>
<td>E. a document for a particular bank account that shows its beginning and ending balances and lists the month’s transactions that affect the account</td>
</tr>
<tr>
<td>6. nonsufficient funds cheque</td>
<td>F. a document that instructs the bank to pay a designated person or business a specified amount of money</td>
</tr>
<tr>
<td>7. outstanding cheque</td>
<td>G. a fund containing a small amount of cash that is used to pay minor expenditures</td>
</tr>
<tr>
<td>8. service charge</td>
<td>H. a malicious computer program that performs destructive actions</td>
</tr>
<tr>
<td>9. collusion</td>
<td>I. two or more employees work together to beat internal controls to defraud the firm</td>
</tr>
<tr>
<td>10. bank collection</td>
<td>J. a system that accounts for cash transactions by electronic impulses rather than paper documents</td>
</tr>
<tr>
<td>11. bank reconciliation</td>
<td>K. a method of accounting for petty cash by which the balance in the Petty Cash account is compared to the sum of cash on hand plus petty cash disbursement tickets</td>
</tr>
<tr>
<td>12. cheque</td>
<td>L. bank’s fee for processing a depositor’s transactions</td>
</tr>
<tr>
<td>13. deposit in transit</td>
<td>M. collection of money by the bank on behalf of a depositor</td>
</tr>
<tr>
<td>14. imprest system</td>
<td>N. employed by public accounting firms; hired to audit a client’s books</td>
</tr>
<tr>
<td>15. internal control</td>
<td>O. a device to prevent access to a network by non-members</td>
</tr>
<tr>
<td>16. petty cash</td>
<td>P. process of explaining the reasons for the difference between a depositor’s records and the bank’s records of the depositor’s bank account</td>
</tr>
<tr>
<td>17. payment packet</td>
<td>Q. the organizational plan and all related measures adopted by an entity to safeguard assets, ensure accurate and reliable accounting records, promote operational efficiency, and encourage adherence to company policies</td>
</tr>
</tbody>
</table>

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II. Multiple Choice  

Circle the best answer.

1. Larry Styles handles cash receipts and has the authority to write off accounts receivable. This violates separation of:

A. custody of assets from accounting  
B. operations from accounting  
C. duties within the accounting function  
D. authorization of transactions from custody of related assets

2. Rolando Valdez keeps both the cash receipts journal and the cash payments journal. This violates separation of:

A. custody of assets from accounting  
B. operations from accounting  
C. duties within the accounting function  
D. authorization of transactions from custody of related assets

3. Which of the following items does not require a journal entry?

A. interest paid on chequing account  
B. deposits in transit  
C. collection by bank of note receivable  
D. bank service charge

4. The journal entry to record an NSF cheque returned by the bank is:

A. debit Cash, credit Accounts Receivable  
B. debit Accounts Payable, credit Cash  
C. debit Accounts Receivable, credit Cash  
D. debit Miscellaneous Expense, credit Cash

5. Which of the following is not an internal control procedure for cash receipts?

A. comparing actual cash to cash register tape totals  
B. pricing merchandise at uneven amounts  
C. paying bills by cheque  
D. enabling customers to see amounts entered on cash receipts

6. A debit balance in Cash Short and Over is reported on the income statement as:

A. Other Revenue  
B. Cost of Goods Sold  
C. General Expenses  
D. Miscellaneous Expenses

7. Which of the following documents is prepared first?

A. purchase requisition  
B. receiving report  
C. purchase order  
D. cheque

8. Which of the following documents is prepared last?

A. purchase requisition  
B. receiving report  
C. purchase order  
D. cheque

9. Which of the following would not be included on the bank reconciliation?
A. amortization          C. interest deposited directly into the bank account
B. electronic funds transfer       D. payments for services charges

10. Which of the following is not an internal control for cash?

A. fidelity bonds  C. electronic sensors
B. point-of-sale terminal       D. fireproof vault

III. Completion  Complete each of the following statements.

1. ____________________________ is a measure of making small cash disbursements quickly.
2. ____________________________ establishes ethical standards for chartered accountants.
3. ____________________________ auditors are regular employees of a business; ____________________________ auditors are independent of the business.
4. In a good internal control system, the following functions are separated:
   a) ____________________________
   b) ____________________________
   c) ____________________________
   d) ____________________________
5. ____________________________ is usually the first asset listed on the balance sheet.
6. In preparing a bank reconciliation, the first amount listed is the ____________________________.
7. When preparing the bank reconciliation, outstanding cheques are ____________________________ from the ____________________________.
8. What account(s) is (are) debited when petty cash is replenished? ____________________________
9. ____________________________ insure a company against theft by an employee.
10. ____________________________ is a temporary account used to reconcile discrepancies which result from cash transactions.

IV. Daily Exercises

1. Indicate how each of the following items is treated in a bank reconciliation. Use AB for additions to the bank balance; AF for additions to the firm’s balance; DB for deductions from the bank balance; and DF for deductions from the firm’s balance.
   _____ A. A deposit for $143 was not recorded in the books
   _____ B. A cheque for $34 was entered in the books as $43
   _____ C. Bank collection of a note receivable
   _____ D. Bank service charges
   _____ E. A deposit was credited by the bank to the firm’s account in error
   _____ F. Deposits in transit
   _____ G. Interest earned on chequing account
   _____ H. Outstanding cheques
   _____ I. NSF cheques
2. Examine your answers in Daily Exercise #1 and indicate which reconciling items will require a journal entry.

3. A small law firm maintains a $250 imprest petty cash fund. At the end of the month, there were receipts for expenditures totaling $228 and $21 in coins and currency. In the space below, record the entry to replenish the fund.

4. There are only three circumstances where the account Petty Cash is used in a journal entry. What are they?
IV. Exercises

1. Lana’s bank statement gave an ending balance of $1,036.00. Reconciling items include: deposit in transit, $450.00; service charge, $18.00; outstanding cheques, $378.00; and interest earned on her chequing account, $3.00. What is the adjusted bank balance after the bank reconciliation is prepared?

2. Using the information in Exercise 1 above, what was the unadjusted ending balance in Lana’s chequing account?

3. During the month of May, Fred’s Photo Co. had the following transactions in its petty cash fund.

   May 1 Established petty cash fund, $300
   May 6 Paid postage, $29
   May 8 Paid freight charges, $43
   May 11 Purchased office supplies, $31
   May 22 Paid miscellaneous expenses, $28
   May 30 Replenished the petty cash fund ($167 was in the fund)

Prepare the journal entries required by each of the above transactions.

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
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</tbody>
</table>

VI. Beyond the Numbers
At the Sing Along Opera House, you notice that there is a box office at the entrance where the cashier receives cash from customers and, with a press of a button, a machine ejects serially numbered tickets. To enter the opera house, a customer must present his or her ticket to the door attendant. The attendant tears the ticket in half and returns the stub to the customer. The other half of the ticket is dropped into a locked box.

1. What internal controls are present in this scenario?
2. What should management do to make these controls more effective?
3. How can these controls be rendered ineffective?

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

VII. Demonstration problems

Demonstration Problem #1

The following petty cash transactions occurred in March:

March 1 Management decided to establish a petty cash fund. A cheque for $200 was written and cashed with the proceeds given to Becky Stone, who was designated custodian of the fund.

March 1 Rami Naraine, the owner of the business, immediately took $25 for lunch money.

March 4 $12.95 was disbursed to reimburse an employee for an air-express package paid for with personal funds.

March 6 COD freight charges on Supplies were paid, $22.00.

March 9 $29 was spent on postage stamps while the postage meter was being repaired.

March 11 Mr. Naraine “borrowed” another $35 from the fund.

March 12 COD freight charges on merchandise were paid, $31.

March 13 Because the fund was running low, Ms. Stone requested a cheque to replenish it for the disbursements made. As there was $44.45 on hand, Ms. Stone requested a cheque for $155.55. However, her supervisor authorized a cheque for $355.55 so sufficient funds would be on hand and only require monthly replenishment.

March 16 The monthly charge for the office newspaper was paid, $18.

March 19 COD charges on merchandise were paid, $47.

March 20 Mr. Naraine took $55 from the fund.

March 22 Ms. Stone took $12 from the fund to purchase coffee and supplies for the office coffee room.

March 25 Mr. Naraine’s spouse arrived by taxi. The fare of $19 plus a $3 tip was paid from the petty cash fund.

March 26 $35 was paid from the fund to have the front windows washed.

March 28 A coworker did not have lunch money. Ms. Stone gave the coworker $15 from the fund and took a postdated cheque for that amount.

March 31 The company decided to replenish the fund on the last working day each month. There was
$193.00 left in the fund.

**Required:**

1. Record the appropriate transactions in the general journal.
2. Post any entries to the Petty Cash Fund account.

**Requirement 1 (General Journal entries)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts and Explanation</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

**Requirement 2 (Post entries to Petty Cash Fund)**

Petty Cash Fund
### Demonstration Problem #2

Selected columns of the cash receipts journal and the cash payments journal of Matrix.com appear as follows on March 31, 2008:

<table>
<thead>
<tr>
<th>Date</th>
<th>Cash Debit</th>
<th>Cheque No.</th>
<th>Cash Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 3</td>
<td>$484</td>
<td>669</td>
<td>$464</td>
</tr>
<tr>
<td>7</td>
<td>1,402</td>
<td>670</td>
<td>4,228</td>
</tr>
<tr>
<td>12</td>
<td>816</td>
<td>671</td>
<td>890</td>
</tr>
<tr>
<td>14</td>
<td>1,800</td>
<td>672</td>
<td>1,512</td>
</tr>
<tr>
<td>24</td>
<td>5,430</td>
<td>673</td>
<td>1,810</td>
</tr>
<tr>
<td>31</td>
<td>764</td>
<td>674</td>
<td>210</td>
</tr>
<tr>
<td>Total</td>
<td>$10,696</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The cash account of Matrix.com shows the following information on March 31, 2008:

<table>
<thead>
<tr>
<th>Date</th>
<th>Item</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 1</td>
<td>Balance</td>
<td></td>
<td></td>
<td></td>
<td>$11,364</td>
</tr>
<tr>
<td>31</td>
<td>CR 1</td>
<td></td>
<td>10,696</td>
<td></td>
<td>22,060</td>
</tr>
<tr>
<td>31</td>
<td>CP 2</td>
<td></td>
<td></td>
<td>12,332</td>
<td>9,728</td>
</tr>
</tbody>
</table>

Matrix.com received the following bank statement on March 31, 2008.

**Bank Statement for Matrix.com**

<table>
<thead>
<tr>
<th>Beginning balance</th>
<th>$11,364</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits and other credits:</td>
<td></td>
</tr>
<tr>
<td>Mar. 4</td>
<td>484</td>
</tr>
<tr>
<td>8</td>
<td>1,402</td>
</tr>
<tr>
<td>11</td>
<td>3,660</td>
</tr>
<tr>
<td>13</td>
<td>816</td>
</tr>
<tr>
<td>15</td>
<td>1,800</td>
</tr>
<tr>
<td>25</td>
<td>5,430</td>
</tr>
<tr>
<td>31</td>
<td>32 INT</td>
</tr>
<tr>
<td>Total</td>
<td>$13,624</td>
</tr>
</tbody>
</table>
Cheques and other debits:

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 3</td>
<td>$1,450</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>446</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>4,228</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>890</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1,512</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>350 NSF</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>1,810</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>1,562</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>28 SC</td>
<td>$12,276</td>
</tr>
</tbody>
</table>

Ending balance: $12,712

Legend:
- BC = Bank Collection
- NSF = Nonsufficient Funds Cheque
- SC = Service Charge
- INT = Interest Earned

Additional data for the bank reconciliation:

1. The $3,660 bank collection on March 11 includes $260 interest revenue. The balance was attributable to the collection of a note receivable.
2. The correct amount of Cheque Number 669 is $446, a payment on account. The Matrix.com bookkeeper mistakenly recorded the cheque in the cash payments journal as $464.
3. The NSF cheque was received from Global, Inc.
4. The bank statement includes a $1,450 deduction for a cheque drawn by MiTricks.com. The bank has been notified of its error.
5. The service charge consists of two charges: $8 for the monthly account charge and $20 for the NSF cheque.

Required:

2. Record the entries based on the bank reconciliation. Include explanations.
Requirement 1 (Bank reconciliation)

Matrix.com
Bank Reconciliation
March 31, 2008

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts and Explanation</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
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<tbody>
<tr>
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</tr>
</tbody>
</table>

Requirement 2 (Entries based on bank reconciliation)

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts and Explanation</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>
SOLUTIONS

I. Matching

II. Multiple Choice
1. D Handling cash receipts and having authority to write off accounts receivable puts the person in a position to illegitimately write off an account on which payment has been received. This is a violation of separation of the authorization of transactions from custody of related assets.
2. C Independent performance of various phases of accounting helps to minimize errors and the opportunities for fraud. The cash receipts journal and the cash disbursements journal are two duties within the accounting function that should be separated.
3. B Deposits in transit are cash receipts that have been recorded in the cash receipts journal of the business but have not yet been recorded by the bank. The other items listed are items that will be reflected in the banks records, but have not yet been recorded on the books of the business.
4. C An NSF cheque represents a previously recorded cash receipt that has no substance and, accordingly, must be reversed; reduce cash (credit) and reestablish the receivable (debit).
5. C Paying bills by cheque is an internal control procedure for cash disbursements, not cash receipts. The other items listed are internal control procedures for cash receipts.
6. D A debit balance means a cash shortage exists. It is reported as a miscellaneous expense.
7. A The purchasing process starts when the sales department identifies a need for merchandise and prepares a purchase requisition. The purchase order, receiving report, and voucher follow in that order.
8. D The cheque is prepared last.
9. A Amortization is a non-cash item and would not be included on the bank reconciliation.
10. C Electronic sensors attempt to control inventory, not cash.

III. Completion
1. Petty Cash fund
2. Rules of Professional Conduct (established by each provincial institution)
3. Internal; external (Internal auditors report directly to the company's president or audit committee of the board of directors. External auditors audit the entity as a whole and usually report to the shareholders.)
4. custody of assets from accounting, authorization of transactions from custody of related assets, operations from accounting, duties within the accounting function
5. Cash (Assets are listed in order of relative liquidity; cash is listed first because it is the most liquid.)
6. beginning cash balance
7. deducted, balance per bank
8. Various expense accounts (Note that the Petty Cash account is debited or credited only when the amount of the fund is changed.)
9. Fidelity bonds
10. Cash Short and Over

IV. Daily Exercises

1. A) AF  B) AF  C) AF  D) DF  E) DB  F) AB  G) AF  H) DB  I) DF
2. Items A, B, C, D, G, and I will all require a journal entry.
3. Miscellaneous Expense 228
   Cash Short and Over 1
   Cash 229
4. The Petty Cash account is part of a journal entry when
   a. the fund is established
   b. the size of the fund is increased
   c. the size of the fund is decreased

V. Exercises

1. Balance per bank statement $1,036
   Add:
   Deposit in transit 450
   Outstanding cheques 378
   Adjusted bank balance $1,108

2. This requires you to work backwards. Start by setting up what is known and then solve for the unknown balance. Remember that the adjusted balance in the chequebook will equal the adjusted bank balance on the bank reconciliation.
   Balance per chequebook $ ?
   Add:
   Interest earned 3
   Service charge 18.00
   Adjusted bank balance $1,108
   Book balance + 3.00 - 18.00 = 1,108
   Book balance = 1,123.00
3.

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 1</td>
<td>Petty Cash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cash</td>
<td></td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>May 30</td>
<td>Miscellaneous Expense</td>
<td></td>
<td></td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Postage Expense</td>
<td></td>
<td></td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Freight Expense</td>
<td></td>
<td></td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Supplies</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Cash Short and Over</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Cash</td>
<td></td>
<td></td>
<td>133</td>
</tr>
</tbody>
</table>

Note that you make an entry to record the various expenses only when the Petty Cash fund is replenished.

VI. Beyond the Numbers

1. Notice that there is separation of duties—one person issues the ticket and collects the money, and the other person oversees the admission to the opera house. Thus, a ticket is necessary to gain entrance.

   The tickets are serially numbered. Management can determine the amount of cash that should be in the drawer by multiplying the price of each ticket by the number of tickets issued.

2. To make the controls effective, management should 1) record the serial number of the first and last ticket sold on each cashier’s shift, 2) maintain control over the unsold tickets, and 3) count the cash at the beginning and end of each shift.

3. The controls are ineffective if there is collusion by the cashier and the door attendant. The door attendant may choose to keep the entire ticket instead of tearing it in half. The ticket is then given to the cashier to be sold again. The cashier can then pocket the cash received for the “used” tickets. Remember, internal controls are ineffective if everyone colludes.

VII. Demonstration Problems

Demonstration Problem #1

Requirement 1

Only three entries were required in this problem! Remember, the purpose of a petty cash fund is to make small disbursements while avoiding the time and cost of writing cheques. Therefore, entries are only recorded when a fund is established, when the fund balance is changed, and when the fund is replenished.

<table>
<thead>
<tr>
<th>March 1</th>
<th>Petty Cash Fund</th>
<th>200.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cash</td>
<td></td>
</tr>
<tr>
<td></td>
<td>200.00</td>
<td></td>
</tr>
<tr>
<td>March 13</td>
<td>Naraine, Withdrawals</td>
<td>60.00</td>
</tr>
<tr>
<td></td>
<td>Postage</td>
<td>41.95</td>
</tr>
<tr>
<td></td>
<td>Supplies</td>
<td>22.00</td>
</tr>
</tbody>
</table>
Freight In (or Inventory)   31.00
Cash Short and Over   .60
Petty Cash Fund   200.00
Cash   355.55

Amounts taken by the owner are charged to the Drawing account. Freight charges on merchandise are debited to Freight In (or Inventory). Freight charges on assets are debited to the asset account, not to Freight-In. Freight In is a cost of goods sold account and the supplies are for use, not for resale. Finally, the receipts plus remaining cash did not reconcile to the beginning balance so Cash Short and Over was debited for the difference.

March 31

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight In (or Inventory)</td>
<td>47</td>
</tr>
<tr>
<td>Naraine, Withdrawals</td>
<td>77</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>15</td>
</tr>
<tr>
<td>Miscellaneous Expense</td>
<td>65</td>
</tr>
<tr>
<td>Cash Short and Over</td>
<td>3</td>
</tr>
<tr>
<td>Cash</td>
<td>207</td>
</tr>
</tbody>
</table>

The newspaper, coffee money, and window washing were all charged to Miscellaneous Expense, although they could be debited to separate accounts. The postdated cheque is charged to Accounts Receivable because it represents an amount the employee owes the business. Allowing an employee to “borrow” from the petty cash fund violates effective internal control procedures and should be stopped immediately. If permitted to continue, the petty cash fund will contain nothing but a stack of postdated cheques!
### Requirement 2

**Petty Cash Fund**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1</td>
<td>200</td>
</tr>
<tr>
<td>March 13</td>
<td>200</td>
</tr>
<tr>
<td>Bal.</td>
<td>400</td>
</tr>
</tbody>
</table>

Assuming the company is correct in its estimates that a $400 balance is sufficient for the petty cash fund, the general ledger account, Petty Cash Fund, will remain as presented above, with the $400 balance undisturbed.

### Demonstration Problem #2

#### Requirement 1

**Matrix.com**  
**Bank Reconciliation**  
**March 31, 2008**

**BANK:**
- Balance March 31: $12,712
- Add:  
  - Deposit in transit of March 31: 764
  - Correction of bank error: 1,450
  - **Total Additions:** $14,926

**Less:**
- Outstanding cheques
  - Cheque # 674: 210
  - Cheque # 676: 1,656
  - **Total Less:** $1,866

**Adjusted bank balance March 31:** $13,060

**BOOKS:**
- Balance March 31: $9,728
- Add:  
  - Bank collection of note receivable, including interest of $260: 3,660
  - Interest earned on bank balance: 32
  - Error - Cheque # 669: 18
  - **Total Additions:** $13,438

**Less:**
- Service charge: 28
- NSF cheque: 350

**Adjusted bank balance March 31:** $13,060
Explanation: bank reconciliation

1. A bank reconciliation prepared on a timely basis provides good internal control over a company’s cash accounts. Comparing the cash balance in the general ledger with the cash balance maintained by the bank makes errors easy to detect.

2. The month-end balance shown in the general ledger rarely agrees with the month-end balance shown on the bank statement. The difference generally occurs for one of two reasons:

   1. Timing differences: These occur because of the time lag that occurs when one recordkeeper records a transaction before the other. Typical timing differences include:

      - Deposits in transit (the bank has yet to record)
      - Outstanding cheques (the bank has yet to record)
      - Bank service charges (the company has yet to record)
      - Notes collected by the bank (the company has yet to record)
      - Interest earned on account (the company has yet to record)
      - NSF cheques (the company has yet to record)

   2. Errors: An error must result in an adjustment by the recordkeeping party that made the error. If the error is made by the company, a general journal entry is made. The correcting entry will include an increase or decrease to the Cash account. Note that if the bank has made the error, the proper procedure is to notify the bank promptly. Since the company’s records are accurate, no journal entry is needed.

Requirement 2

<table>
<thead>
<tr>
<th>Date</th>
<th>Accounts and Explanation</th>
<th>PR</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. March 31</td>
<td>Cash</td>
<td>3,660</td>
<td></td>
<td>3,400</td>
</tr>
<tr>
<td></td>
<td>Note Receivable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interest Revenue</td>
<td></td>
<td></td>
<td>260</td>
</tr>
<tr>
<td></td>
<td>Note receivable collected by the bank.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. March 31</td>
<td>Cash</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interest Revenue</td>
<td></td>
<td>32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interest earned on bank balance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. March 31</td>
<td>Miscellaneous Expense</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cash</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank service charge.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. March 31</td>
<td>Accounts Receivable - Global, Inc.</td>
<td>370</td>
<td></td>
<td>370</td>
</tr>
<tr>
<td></td>
<td>Cash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NSF cheque returned by bank plus service charge.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. March 31</td>
<td>Cash</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accounts Payable</td>
<td></td>
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<td>18</td>
</tr>
<tr>
<td></td>
<td>To correct error in recording Cheque #115.</td>
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</tbody>
</table>
Explanations: Journal Entries

Entries (a) and (b) are necessary to record the increase in the cash account attributable to 1) the collection of interest and principal on the note receivable, and 2) interest earned on the account paid by the depository bank. These are timing differences which occur because of the time lag between the recording of an item on the bank’s books and the books of the company. The bank has already recorded these items in its records (as evidenced by the bank statement), and the company must do so when it learns of the transaction(s).

Entries (c) and (d), which are similar to entries (a) and (b), reduce cash on the company’s books. These timing differences have already been recorded by the bank. Entry (c) reduces cash for chequing account (or other) service charges for the monthly period and brings the account up to date. The entry for the NSF cheque is necessary to establish an account receivable for Global, Inc. They had paid the company with a cheque that was deposited in the cash account. Because the cheque was returned unpaid for nonsufficient funds, the company must pursue collection of the debt and record on its books that $370 is still owed ($350 for the bad cheque plus the $20 service charge).

Entry (e) represents the correction of an error. Cheque #669 was recorded in the cash payments journal as a reduction to Cash of $464 instead of $446.

Note: No entry is required for the bank error. Once notified, the bank needs to correct its books.