CHAPTER 6

Audit Planning, Understanding the Client, Assessing Risks, and Responding

Review Questions

6–1 In their investigation of a prospective client, the CPAs should assess the backgrounds and reputations of the prospect and its major shareholders, directors, and officers. Thus, inquiries are made of underwriters, bankers, and attorneys that conduct business with the prospective client. Also, the CPAs are required to make inquiries of the prospect’s predecessor auditors to obtain information that might enter into the acceptance decision, such as information regarding the integrity of management. The prospect’s financial reports, SEC filings, credit reports, and tax returns are used as sources of financial background information.

6–2 The audit committee of a board of directors must be composed of at least three independent directors. Independent directors are those who are outside directors (not officers or employees) who have no relationships that might impair their independence. This would include relationships such as performing consulting services for company management. In addition, the members must be financially literate; at least one member must be a financial expert.

6–3 An engagement letter is sent to the client by the auditors to make clear the nature of the engagement, any limitations on the scope of the audit, work to be performed by the client’s staff, and the basis for computing the auditors’ fee. The engagement letter represents the written contract for the engagement, and its primary objective is to prevent possible misunderstandings between the client and the auditors. It constitutes an executory contract between the auditors and the client.

6–4 “Shopping for accounting principles” is a practice whereby management changes auditors to a CPA firm that is more likely to allow an accounting principle that has been the subject of dispute with the company’s prior auditors. A number of mechanisms serve to discourage the practice, including: (1) the requirements of AICPA AU 210 (PCAOB 315) for the successor auditors to inquire of the predecessors about the reasons for the change in auditors, (2) the SEC 8-K requirements for management to report the reasons for a change in auditors that also require the auditors to express their agreement with the details, and (3) the requirements under AICPA AU 825 (PCAOB 625) that require accountants who are being asked to provide a report on the accounting treatment of an prospective or completed transaction to consult with the client’s auditors to ensure that they have a complete understanding of the form and substance of the transaction. In addition, the Sarbanes-Oxley Act of 2002 requires the audit committee to assume responsibility for engaging, compensating, and overseeing the auditors.

6–5 The approach described in the statement is not appropriate. Materiality depends on both the dollar amount and the nature of the item. For example, auditors apply a more rigorous standard of
materiality in evaluating transactions between related parties and potentially illegal acts than they apply to misstatements in accounts.

6–6 The two types of misstatements due to fraud are (1) misstatements arising from fraudulent financial reporting, and (2) misstatements arising from misappropriation of assets (sometimes referred to as defalcation). Fraudulent financial reporting is of more concern to the auditors because it typically results in effects that are much more material to the financial statements. Defalcations often are not material to the financial statements.

6–7 A business risk is a threat to achieving management’s objectives. There are many examples of business risks that may result in a risk of material misstatement of the financial statements. Two are shown below:

<table>
<thead>
<tr>
<th>Business Risk</th>
<th>Risk of Material Misstatement</th>
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<tbody>
<tr>
<td>Rapidly changing technology in the client’s industry may threaten to cause the client’s products to become obsolete.</td>
<td>Inventory may be overvalued because it is not valued at net realizable value.</td>
</tr>
<tr>
<td>Economic conditions in the industry may result in significant uncollectible accounts receivable.</td>
<td>Accounts receivable may be overvalued because the allowance for uncollectible accounts is not adequate.</td>
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6–8 The audit procedures to be followed in a given engagement depend upon such factors as the risks of material misstatement of the financial statements, the assumption about the effectiveness of internal control, the auditors’ estimates of materiality, the nature of the accounting records, the caliber of accounting personnel, and any special objectives of the engagement. Consequently, a separate, tailor-made audit program should be prepared for each audit engagement.

6–9 The quotation is misleading because it implies that an audit program is no more than a checklist of instructions for inexperienced auditors. Actually, audit programs are essential to assessing that all work is performed and are used on virtually all audit engagements regardless of the amount of experience of the auditor. Also, a written audit program is required for all audits.

6–10 The risk of material misstatement is the probability that an account, class of transactions, or disclosure is materially misstated. It consists of inherent risk (the risk of material misstatement without considering internal control) and control risk (the risk that internal control will fail to prevent or detect and correct the material misstatement).

6–11 Significant risks often relate to nonroutine transactions and estimation transactions. Such transactions typically involve more subjective judgment than routine transactions and, therefore, they often have a higher risk of material misstatement. Significant risks may also be fraud risks.
Factors that may cause an audit engagement to exceed the original time estimate include the following:

1. Accounting records may not be up to date and complete.
2. Inadequacies in internal control may be discovered necessitating a more detailed audit than anticipated.
3. A significant risk, such as a fraud risk, may be discovered requiring an extension of audit procedures.
4. Fraud may be discovered, and an extended investigation may be authorized by the client to clarify the situation.
5. Inadequate supervision of audit staff may permit unnecessary or misdirected work to be performed.
6. Findings during the course of the audit may cause the client to request extension of the scope of the work.

In some engagements, clients are charged at agreed daily or hourly rates for the time used to perform the audit. The difficulty of forecasting time requirements is a principal reason for the use of per diem rates rather than quoting a fee for the entire engagement. For many engagements, a maximum fee is agreed upon; this plan may, of course, force the auditing firm to absorb part of the cost of unexpected amounts of work. A decision as to charging the client for unusual amounts of time will involve consideration of all aspects of the engagement and prior relations with the client. Generally, however, the client should not be billed for excessive time attributed to audit inefficiencies (e.g., item (5) above).

Underreporting of time results in the CPA firm not billing the client for all of the time actually involved in rendering the professional services. Thus, the firm’s revenue is being restricted. In addition, the underreporting will cause the firm to underestimate the amount of time required for future engagements. Thus, auditors on future engagements will be expected to perform audit procedures in an unrealistically short period of time. This interferes with the performance of an effective audit as well as the realistic evaluation of firm personnel.

Balance sheet items are more easily verified than are income statement accounts. Assets and liabilities represent existing resources and obligations that may be substantiated by such procedures as physical observation, confirmation by outside parties, and examination of externally created documentary evidence. Revenue and expenses, on the other hand, have no tangible form. Rather, they exist only as entries in accounting records, describing the effect of certain changes in assets and liabilities upon owners’ equity. The best way to substantiate revenue or expenses is usually to verify the related change in an asset or liability account.

The general objectives of the auditor’s substantive procedures with respect to assets are to:

1. Establish the existence of the assets.
2. Establish the client’s rights to the assets.
3. Establish the completeness of recorded assets.
4. Verify cutoff of related transactions.
5. Determine the proper valuation of the assets.
6. Determine the proper financial statement presentation and disclosure.
Making a proper cutoff refers to the process of assigning transactions occurring near the balance sheet date to the proper accounting period. A cutoff error in recording sales transactions affects revenue in the income statement, and accounts receivable (or cash) and retained earnings in the balance sheet. In addition, an offsetting error in revenue will occur in the income statement of the following year.

A cutoff error in recording sales also may give rise to a related cutoff error in recording the cost of these sales. An improper cutoff in recording the cost of sales affects cost of goods sold in the current income statement, and inventory and retained earnings in the current balance sheet. An offsetting error in the cost of goods sold will also occur in the following year’s income statement.

a. The purpose of tracing journal entries forward into the ledgers is to verify the completeness of the client’s posting procedures.

b. The purpose of vouching ledger entries to the journals is to provide the auditor with assurance that entries in the ledger are supported by journal entries. This procedure addresses the existence assertion.

In all audits certain procedures may be performed during the interim period, including:

- Obtaining an understanding or updating the understanding of the client and its environment
- Assessing the risks of material misstatement of the financial statements (inherent risks)
- Obtaining an understanding of internal control and performing tests of controls
- Issuance of the management letter
- Substantive tests of transactions that have occurred prior to the end of the interim period

The extent of the interim tests of financial statement balances (e.g., accounts receivable) that may be performed during the interim period depends largely on the effectiveness of the client’s internal control. When the client has very strong internal control, many of the substantive procedures may be performed before year-end.

Tests of controls are designed to provide the auditors with assurance that prescribed internal control policies and procedures are in use and operating effectively. This information is useful to the auditors in assessing the likelihood of material misstatements occurring in various financial statement amounts. However, tests of controls generally do not indicate the amount of misstatement or whether, in fact, any material misstatement actually exists. Substantive procedures are designed to detect material misstatement in specific financial statement amounts. The amount of substantive procedures performed by the auditors depends in large part upon their assessment of the likelihood that material misstatements might exist.

The audit plan, the audit program, and the time budget are developed to help ensure compliance with the generally accepted standard of fieldwork that requires adequate planning of the audit work and proper supervision of assistants. It would be difficult, if not impossible, to comply with generally accepted auditing standards if there were no detailed and broad planning as manifested in the audit plan, the audit program, and the time budget.

The purpose of the team meeting on fraud risk is designed to allow the more experienced team members to share insights and exchange ideas about how and where the entity’s financial statements might be susceptible to material misstatement due to fraud, to discuss how to design appropriate procedures to detect the misstatements, and to emphasize the importance of maintaining the proper degree of professional skepticism regarding the possibility of fraud.
6–22 The preceding year’s audit working papers contain a great deal of information useful to the auditor in a recurring examination. The audit plan provides background information about the client, significant risks, and identifies major problem areas encountered during the previous engagement. The prior year’s audit program provides a formal list of the procedures performed during the last engagement, many of which should be applicable in the current audit, and the time required to complete each procedure. This information is very helpful in developing an audit program and time budget for the current engagement.

Many of the previous audit working papers are helpful to new audit staff by providing examples of working paper format and organization. Also, these working papers substantiate the beginning account balances for the year under audit.

6–23 During the planning process, the auditors make preliminary estimates of both risk and materiality for the engagement. The auditors must plan their engagements to reduce the audit risk of issuing an unqualified opinion on materially misstated financial statements to a relatively low level. At the account balance level, audit risk actually has three components: (1) inherent risk, (2) control risk, and (3) detection risk. On audits where the risk of misstatement is relatively high, the auditors must compensate by increasing the effectiveness of their audit procedures. They may design more effective procedures, increase the number of items selected for testing, or perform more procedures at the balance sheet date rather than at an interim date. They may also add an element of unpredictability to the procedures.

The auditors’ preliminary estimates of levels of materiality also affect the nature, timing, and extent of their planned procedures. Materiality levels determine which accounts are significant enough to require audit, affect the size of the test samples, and determine the dollar amount of individual items that warrant examination.

Questions Requiring Analysis

6–24 The procedures that Morgan should apply in deciding whether to accept this prospective audit client would ordinarily include the following:

1. Evaluate the CPA firm’s independence with respect to the prospective audit client.

2. Explain to the prospective client the need to make inquiries of the predecessor auditor, requesting that the client authorize the predecessor auditor to respond fully and to allow a review of the predecessor’s audit working papers.

3. Make inquiries of the predecessor auditor concerning such matters as the integrity of management, any disagreements with management as to accounting principles, the reason for the change in auditors, and any other matters affecting the decision of whether to accept the engagement.

4. Make inquiries of other appropriate third parties regarding the history of the prospective client and the reputations of its management and directors. These third parties may include the client’s bankers, legal counsel, and underwriters.

5. Obtain a knowledge of the client’s business activities and business environment. Sources of this information include inquiries of management and others within the organization, inspection of internal documents and records, the client’s website, AICPA accounting and audit guides, registration statements and *Form 10-Ks* filed with the SEC, interim financial statements, income tax returns, and credit reports.
6–25  

(6) Consider any special problems or unique risks likely to be associated with the engagement.

(7) Hold preliminary meetings with management and the audit committee to discuss such matters as the scope of the services to be performed, timing of the performance and completion of the audit, basis for the fee, and work that may be done by the client’s staff in preparation for the audit.

Upon acceptance of the engagement, Morgan should issue an engagement letter summarizing the arrangements reached with the client.

a. Auditors must obtain an understanding of the client and its environment in order to determine whether the client should be accepted and perform risk assessment. This understanding encompasses the following:

1. **The nature of the client, including the client’s application of accounting policies**—The auditors’ understanding of this area will include the client’s competitive position, organizational structure, accounting policies and procedures, ownership, capital structure, and product lines. The understanding will also encompass an understanding of the client’s business model and its major business processes.

2. **The industry, regulatory, and other external factors**—The factors included here are industry conditions, such as the competitive environment, supplier and customer relationships, and technological developments. They also include the regulatory, legal, and political environment, and general economic conditions.

3. **Objectives and strategies and related business risks**—The auditors obtain an understanding of the operating and financing strategies of management. They also obtain an understanding of management’s risk assessment process. This assists the auditors in identifying significant business risks that may create risks of material misstatement of the financial statements.

4. **Methods of measuring and reviewing performance**—The auditors obtain an understanding of the methods management uses to measure and review performance at various levels within the organization. These methods are important to determining incentives of management and other employees. The measures may also be used in designing effective analytical procedures.

5. **Internal control**—The auditors’ understanding of internal control assists them in planning the audit and assessing control risk.

b. Sources of information on prospective clients include AICPA Audit and Accounting Guides and Industry Risk Alerts, trade publications, and governmental agency publications. Previous audit reports, annual reports to stockholders, SEC filings, and prior years’ tax returns are excellent sources of financial background information. Informal discussions between the auditors and key officers can provide information about the history, size, operations, accounting records, and controls of the enterprise. Inquiries of others within the organization can provide information that confirms inquiries of management, and provides more detailed information about risks and business processes. Inspection of internal documents and records can provide information about the nature of the client’s operations and internal control. The predecessor auditor may also provide information.

c. Knowledge of the client and its environment helps the auditors in:
(1) Identifying significant business risks that may result in risks of material misstatement of the financial statements.
(2) Identify special risks that require an audit response.
(3) Design further audit procedures (substantive procedures and tests of controls).
(4) Assessing inherent risk and making preliminary assessments of control risk.
(5) Making judgments about the appropriateness of accounting principles in use and the adequacy of disclosures.
(6) Evaluating the reasonableness of estimates, such as depreciation lives and the allowance for doubtful accounts.
(7) Evaluating the reasonableness of management representations.
(8) Developing an efficient audit strategy.
(9) Determining the staffing requirements of the engagement.

6–26  a. Assess the risk of material misstatement and design further audit procedures (substantive procedures and tests of controls).

b. Possible responses to high risk audit engagements or high risk assertions include:
   - Staff the engagement (audit area) with more experienced individuals or individuals with specialized knowledge.
   - Adjust the timing of audit procedures to nearer to year-end.
   - Perform more effective audit procedures.
   - Increase the extent of items tested.

c. Further audit procedures include substantive procedures and also tests of controls when the audit plan assumes that the controls are operating effectively or substantive procedures alone cannot provide sufficient evidence for a particular assertion.

6–27  The typical engagement letter includes the following:

   (1) The name of the person who retained the auditors to perform the auditing services.
   (2) A description of the objective and scope of the audit.
   (3) A statement that the audit will be conducted in accordance with auditing standards generally accepted in the United States.
   (4) Any scope restrictions or limitations and their effect upon the auditors’ report.
   (5) Statements of auditor and management responsibilities.
   (6) A statement that management agrees to provide the auditors with access to all persons within the entity and all necessary information.
   (7) A statement that the auditors will communicate significant deficiencies that they discover.
   (8) Management will be requested to provide a written confirmation of representations made.
   (9) The scheduled dates for performance and completion of the audit.
   (10) The fee and billing arrangements.
   (11) Space for the appropriate client official to sign, indicating acceptance of the letter and agreement with the arrangements described therein.

6–28  a. Misstatements due to fraudulent financial reporting are intentional misstatements or omissions of amounts or disclosures in the financial statements to deceive financial statement users. Misstatements arising from misappropriation of assets (sometimes referred to as defalcation) involve the theft of an entity’s assets where the effect of the theft causes the
financial statement not to be presented in conformity with generally accepted accounting principles.

b. The three conditions necessary for the commission of fraud include: (1) some type of incentive or pressure, (2) an opportunity to commit the fraud, and (3) an attitude that allows the individual to rationalize the act. In a case of fraudulent financial reporting, members of top management may have an incentive to commit the act relating to maintaining the value of their stock options. They may have an opportunity based on weaknesses in the corporate governance of the organization. Finally, they may be able to rationalize the act by assuming that the company will make enough income next period to allow them to correct the misstatement.

c. The auditors may respond to fraud risks by (1) a modification in the approach having an overall effect on how the audit is conducted, (2) an alteration in the nature, timing, and extent of the procedures performed, and (3) performance of procedures to further address the risk of management override of internal control.

6–29 Students may arrive at a variety of estimates. Those suggested in the text include:

<table>
<thead>
<tr>
<th>Rules of Thumb</th>
<th>Franklin Co.</th>
<th>Tyler Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 percent of net income before taxes</td>
<td>$80,000</td>
<td>$4,500</td>
</tr>
<tr>
<td>10 percent of net income before taxes</td>
<td>160,000</td>
<td>9,000</td>
</tr>
<tr>
<td>1/2 percent of total assets</td>
<td>174,500</td>
<td>13,500</td>
</tr>
<tr>
<td>1 percent of total assets</td>
<td>349,000</td>
<td>27,000</td>
</tr>
<tr>
<td>1/2 percent of total revenues</td>
<td>148,000</td>
<td>22,500</td>
</tr>
<tr>
<td>1 percent of total revenues</td>
<td>296,000</td>
<td>45,000</td>
</tr>
<tr>
<td>1 percent of total equity</td>
<td>138,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Sliding scale illustration</td>
<td>193,33748,350</td>
<td></td>
</tr>
</tbody>
</table>

If the auditors use the rule of thumb guidelines they will usually use the amounts for any rule (e.g., 5 versus 10 percent of sales) in such a manner as to function as a sliding scale in which the materiality measure increases at less than a pro-rata amount as entity size increases. For Franklin Co. (the larger company), the auditors would probably consider the following measures as being relevant:

- 5 percent of net income before taxes $ 80,000
- 1/2 percent of total assets 174,500
- 1/2 percent of total revenues 148,000

Therefore, between $80,000 and $174,500 would be a reasonable range for materiality for the company.
For Tyler Co. (a very small company), the auditors would probably use the higher percentage of the rules of thumb. Also, they would probably not use the net income or equity measures because the company’s income is too low. Therefore the following measures would probably be considered relevant:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>1 percent of total assets</td>
<td>$27,000</td>
</tr>
<tr>
<td>1 percent of total revenues</td>
<td>$45,000</td>
</tr>
</tbody>
</table>

c. Characteristics of a small misstatement that might render it qualitatively material include misstatements of the financial statements that (5 required):

- Affect a company’s compliance with a contractual agreement.
- Reverse a trend of earnings (or other trends).
- Cause a company not to make the consensus earnings per share.
- Arise from an item capable of precise measurement.
- Changes a loss into income, or vice versa.
- Concerns a segment or other portion of a company’s business that has been identified as significant to operations or profitability.
- Affects compliance with regulatory requirements.
- Affects compliance with loan covenants.
- Increases management’s compensation.
- Involves concealment of an unlawful transaction.

6–30 a. If auditors were to use the overall measure of planning materiality for all accounts, they might not discover relatively large errors which, when combined with other undiscovered errors, clearly exceed the materiality measure. Auditors typically allocate materiality when they intend to use audit sampling for substantive testing of one or more of the accounts.

b. The amount allocated to individual accounts may exceed the overall materiality for several reasons. First, many misstatements of various accounts tend to counterbalance each other. Second, the double entry bookkeeping system allows detection of misstatements in an account by auditing a related account (e.g., while auditing receivables, an error might be discovered in sales).
Wells may respond to fraud risks in the following three ways:

(1) A modification in the overall approach to the audit that might involve:
   a. Applying increased professional skepticism and designing procedures that provide more reliable evidence.
   b. Assigning additional staff with specialized skill and knowledge or by assigning more experienced staff to the engagement. Also the extent of the supervision of the staff should be adjusted to reflect the fraud risks.
   c. Giving further consideration to the appropriateness of the accounting principles used by the client.
   d. Incorporating an added element of unpredictability in the selection of auditing procedures.

(2) An alteration in the nature, timing, and extent of the procedures performed. For example, Wells might apply procedures that provide more reliable evidence, shift more audit tests to year-end, or increase sample sizes for certain substantive procedures.

(3) Perform procedures to further address the possibility of management override of internal control, including (1) examining journal entries and other adjustments for evidence of fraud, (2) reviewing accounting estimates for biases, and (3) evaluating the business rationale for significant unusual transactions.

b. Whenever the auditors believe that there is evidence that fraud may exist, the matter should be brought to the attention of an appropriate level of management. Fraud involving senior management and fraud that causes a material misstatement of the financial statements should be reported directly to the audit committee. In very serious situations the auditors should consider resigning the engagement.

Observation of the client’s physical inventory primarily provides evidence related to the existence assertion. To a lesser degree it establishes valuation in that damaged or slow-moving inventory items may be identified for possible lower-of-cost-or-market testing. It may also provide evidence about cutoff of purchases and sales.

b. Physical inspection of equipment items listed in the plant ledger serves to establish the existence of the assets. It does not, however, establish rights to those assets.

c. Obtaining a listing of inventory and reconciling the total to the general ledger establishes a population to be tested for valuation.

d. Tracing shipping documents to recorded sales is designed to establish the completeness of recorded accounts receivable. It also provides evidence about the cutoff of sales transactions.

e. Identifying related parties is performed to determine the appropriate financial statement presentation and disclosure of the assets.

f. Vouching selected purchases of securities establishes existence of, rights to, and valuation (cost) of the securities. It may also provide some evidence about the cutoff of security transactions.

The general approach followed during risk assessment is to use all the evidence obtained about the client and its environment to:
(1) Identify risks.

(2) Relate the identified risks to what can go wrong at the relevant assertion level.

(3) Consider whether the risks are of a magnitude that could result in a material misstatement.

(4) Consider the likelihood that the risks could result in a material misstatement.

b. In responding to financial statement level risks the auditors may:

(1) Assigning to the audit more experienced staff or individuals with specialized skills

(2) Providing more supervision for the audit staff and emphasizing the need for them to maintain professional skepticism

(3) Incorporating additional elements of unpredictability in the selection of further audit procedures to be performed

(4) Increasing the overall scope of audit procedures

c. A significant risk is a risk that requires special audit consideration.

d. In responding to significant risks, the auditors must:
   (1) Carefully consider the design and implementation of the related controls.
   (2) Not rely on evidence gathered in prior periods about the operating effectiveness of the related internal controls.
   (3) Not rely solely on analytical procedures to obtain audit evidence about the related financial statement assertions.

6–34 The procedure performed by Foster is completely ineffective for testing sales cutoff. In a computerized accounting system, the journals and ledgers generally are prepared simultaneously by the computer. The journal entry date and the posting date are both determined by the date indicated by the employee entering the transaction.

To test the effective cutoff of transactions in a computerized or manual accounting system, the auditors must trace entries before and after the balance sheet date to supporting documentation, indicating the date the transaction actually occurred. For sales transactions, the auditors are interested in examining shipping documents, which indicate the date the sales took place.

6–35 The solution to this question will vary with the company selected by the student. Typical business risks include:

(1) Rapid pace of technology change in the industry
(2) Competition
(3) Changes in regulatory requirements
(4) International operations
(5) Internal product development
(6) Changes in foreign exchange rates
(7) Changes in interest rates
(8) Defendant in lawsuits
(9) Changes in securities prices
(10) Changes in software piracy laws
(11) Changes in social, political, and economic conditions

6–36 (1)  
a. There is an increased risk of fraudulent financial reporting by subsidiary management. More specifically, subsidiary management would likely attempt to increase revenue or decrease expenses.
b. The auditors would probably respond by performing more procedures at the subsidiary location. Additional tests of revenue would be performed and the auditors would likely decide to observe inventory at year-end. In addition, some of the procedures may be performed on an unannounced basis.

(2)  
a. There is an increased risk of fraudulent financial reporting by management related to revenue.
b. The auditors would likely respond by utilizing more experienced audit team members. Specifically, audit staff that had experience with complex revenue contracts in the telecommunications industry. They would also likely increase the extent of the substantive procedures applied to revenue.

(3)  
a. There is an increased risk that the futures traders will fraudulently overstate the value of the contracts to increase their compensation.
b. The auditors would likely respond to this situation by bringing in a specialist to assist in valuing the contracts. In addition, they would do extensive testing of the valuation of the contracts.

(4)  
a. There is an increased risk that management may be fraudulently overstating income at one or more of the stores.
b. The auditors would likely respond by doing increased testing of revenue and inventory at the stores. The auditors could use the results of the analytical procedures to identify stores that are more likely to have fraudulently reported results (e.g., those with unusually high profit margins). The auditors also may not disclose the locations that they intend to visit for inventory observation.

6–37  
Section 13(b)(2) of the Securities and Exchange Act of 1934 indicates that every issuer with securities registered under Section 12 and every issuer that is required to file reports under Section 15(d) must:

(1) Keep records which accurately reflect the transactions and dispositions of the assets, and
(2) Devise and maintain a system of internal control sufficient to provide reasonable assurance that:
   a. Transactions are executed in accordance with management’s authorization,
   b. Transactions are recorded as necessary to permit preparation of financial statements in accordance with appropriate accounting principles and maintain accountability for assets,
   c. Access to assets is restricted to authorized individuals, and
   d. The recorded accountability for assets is compared with assets at reasonable intervals and appropriate action is taken with respect to differences.

   (This section is a requirement of the Foreign Corrupt Practices Act of 1976—see Chapter 7.)

Objective Questions

6–38  
Multiple Choice Questions

a. (3) An unreliable accounting system provides an opportunity for an individual to misappropriate assets. The other items create risks of fraudulent financial reporting.
b. (4) Members of the audit committee should be independent of management. Therefore, the individuals should be board members who are not employees or officers, and who have not relationship with management that might impair their objectivity.

c. (4) Management should not be informed about which branches were selected for testing at all or at least not until just before testing is to be done.

d. (3) Substantive procedures substantiate the account balances as of the balance sheet date and therefore cannot be completed prior to that date. The other items pertain to the operation of the system during the year under audit and could be completed in the interim period.

e. (4) **Before** accepting an engagement the possible successor should ask questions about the **integrity of management**, disagreements with management, and the reasons for the change in auditors. All of the other replies are incorrect because they represent information that the successor may wish to obtain **after** accepting the engagement.

f. (4) Because entries in the sales journal represent recorded sales, tracing entries from it to debits in the accounts receivable ledger provides evidence on whether recorded sales have been properly posted to customer accounts.

g. (3) The objective of tests of details of transactions performed as substantive procedures is to detect material misstatements in the financial statements as transactions are tested to determine whether they have been properly recorded.

h. (4) Detection risk is the risk that the auditor will conclude, based on substantive procedures, that a material misstatement does not exist in an account balance, when, in fact, such misstatement does exist.

i. (3) Materiality and audit risk underly the application of generally accepted auditing standard in that so many audit decisions are affected by the amount used as a materiality measure and the level of audit risk assumed on the engagement.

j. (2) Fraud risk factors are factors that have been observed in circumstances in which fraud has occurred. The fraud risk factors were identified by researchers and practitioners through analyses of many past frauds. Yet, none of the factors was always present in the various individual cases included in the analyses. Answer (1) is incorrect because in any particular circumstance, the existence of a fraud risk factor may or may not indicate that in that circumstance the risk of fraud is high. Answer (3) is incorrect because the existence of a fraud risk factor may not require modification of planned audit procedures (e.g., the audit program may already have audit procedures that consider the factor). Answer (4) is incorrect because a fraud risk factor may or may not be a significant deficiency.

k. (3) AICPA AU 240 (PCAOB 316) outlines the three functions generally necessary for fraud as (1) incentive or pressure, (2) opportunity, and (3) attitude. Being in a supervisory position is not one of those conditions, although it may provide the individual an opportunity to commit fraud.

l. (2) Less predictable audit procedures are likely to be used when fraud risks are high. SAS 99 also suggest that the auditors have increased skepticism, assign more skilled staff, and consider further management’s selection and application of accounting principles. Answer
(1) is incorrect because supervision of members of the audit team will be closer, not less. Answer (3) is incorrect because team members may or may not be CPAs (e.g., a fraud specialist who is not a CPA might be added to the team). Answer (4) is incorrect because subjective, rather than objective transactions may often be emphasized—depending upon the nature of the fraud risks identified.

6–39 Adapted AICPA Task-Based Simulation

<table>
<thead>
<tr>
<th>Factor</th>
<th>Effect on Risks of Material Misstatement (Increase or Decrease)</th>
<th>Create a Risk of Fraud? (Yes or No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. NFB is a continuing audit client.</td>
<td>D</td>
<td>N</td>
</tr>
<tr>
<td>b. The banking industry has been significantly impacted by the downturn in the economy in recent years.</td>
<td>I</td>
<td>Y</td>
</tr>
<tr>
<td>c. NFB operates in a growing, prosperous area and has remained profitable over the years.</td>
<td>D</td>
<td>N</td>
</tr>
<tr>
<td>d. Government regulation and overview of the banking industry is extensive and effective.</td>
<td>D</td>
<td>N</td>
</tr>
<tr>
<td>e. NFB’s board of directors is controlled by Smith, the majority stockholder, who also acts as the chief executive officer.</td>
<td>I</td>
<td>Y</td>
</tr>
<tr>
<td>f. Interest rates have been very volatile recently.</td>
<td>I</td>
<td>Y</td>
</tr>
<tr>
<td>g. Management at the bank’s branch offices has authority for directing and controlling NFB’s operations and is compensated based on branch profitability.</td>
<td>I</td>
<td>Y</td>
</tr>
<tr>
<td>h. The internal auditor reports directly to Harris, a minority shareholder, who also acts as chairman of the board’s audit committee.</td>
<td>D</td>
<td>N</td>
</tr>
<tr>
<td>i. The accounting department has experienced little turnover in personnel during the five years Green has audited NFB.</td>
<td>D</td>
<td>N</td>
</tr>
<tr>
<td>j. During 20X1, NFB increased the efficiency of its accounting operations by installing a new, sophisticated computer system.</td>
<td>I</td>
<td>Y</td>
</tr>
<tr>
<td>k. NFB’s formula has consistently underestimated the allowance for loan losses in current years.</td>
<td>I</td>
<td>Y</td>
</tr>
<tr>
<td>l. Management has been receptive to Green’s suggestions relating to accounting adjustments.</td>
<td>D</td>
<td>N</td>
</tr>
</tbody>
</table>

6–40 Adapted AICPA Task-Based Simulation

a. (D) Since TWD returned to profitable operation, its healthier financial condition leads to a decrease in the risk of material misstatement.

b. (I) The risk of material misstatement increases when a single person dominates management. Since Mead controls the Board of Directors, is a majority stockholder, and is the CEO, it would appear that Mead dominates management.

c. (I) The risk of material misstatement increases when the internal auditor reports to top management rather than to the audit committee because it is less likely that the internal auditor will be able to objectively perform the function.

d. (I) The risk of material misstatement increases when the key management positions (particularly senior accounting personnel) encounter turnover.

e. (D) The loan officer’s continual monitoring of TWD decreases the risk of material misstatement.
f. (N) Timing of payroll cycles would normally have no impact on the risk of material misstatement.

g. (I) A strong financial presence or ability to dominate a certain industry sector that allows a company
to dictate terms or conditions to suppliers or customers may result in inappropriate or non-arm’s-
length transactions.

h. (I) A change to generally accepted accounting principles would increase the risk of material
misstatement because the change in basis requires management to prepare a number of entries that
have not been made in the past; these entries may be made improperly. Also, difficulties in
determining beginning accrual basis balances increase the risk of misstatement.

i. (I) The sale of one-half of the company’s controlling interest in United Equipment Leasing is an entry
that is out of the ordinary course of business, and accordingly, increases the risk of material
misstatement.

j. (D) Litigation results in contentious and difficult accounting valuation issues because an accountant
must attempt to determine the likelihood of loss and the amount. Here though, the litigation is settled.

k. (I) The risk of material misstatement increases when significant related party transactions occur and
management has an aggressive attitude towards reporting of the transactions.

l. (I) The risk of material misstatement increases in situations where there are unusual and difficult
accounting issues present. It would appear that the barter transaction with a below market purchase
would be considered an unusual transaction.

m. (N) The amount of insurance coverage would have little impact on the risk of material misstatement.

n. (I) The risk of material misstatement increases as it appears that management has taken an aggressive
attitude toward reporting this transaction. In addition, this appears to be an unusual and difficult
accounting issue involving revenue recognition.

o. (I) Experience has shown that a number of entities have intentionally misstated reported financial
condition and operating results in situations in which a public (or private) placement of securities is
planned.

6–41 Task-Based Simulation
   a. 3 Consideration of fraud in a financial statement audit.
   b. 2 Materiality in planning and performing an audit.
   c. 7 Related parties
   d. 1 Analytical procedures
   e. 5 Consideration of laws and regulations in a financial statement audit
   f. 3 Consideration of fraud in a financial statement audit
   g. 4 Understanding the entity and its environment and assessing the risks of material
      misstatement
   h. 3 Consideration of fraud in a financial statement audit

6–42 Multiple Choice Questions
   a. 2 Vouch from journals to source documents.
   b. 1 Trace from source documents to journals.
   c. 3 Either a or b (if transaction is recorded, testing in either direction will address recording for the
      proper amount—valuation).
   d. 1 Completeness (understatements)
   e. 2 Existence (overstatements)
6–43 Definitions

a. Audit program
b. Audit plan
c. Time budget
d. Engagement letter
e. Inherent risk
f. Audit risk
g. Significant risk
h. Business risk

Problems

6–44 SOLUTION: Cheviot Corporation (Estimated time: 30 minutes)

Mr. John Bray  
President  
Cheviot Corporation  

Dear Mr. Bray:

Our recent tour of Cheviot’s plant was a most pleasant and interesting experience. The information obtained on this tour and during the discussion of your financial statements and accounting records has enabled us to plan the scope of an audit especially suited to your needs.

Our fees are based on the time spent on the engagement by various members of our audit staff, and will be billed at our established rates. The total time required for an initial engagement is usually somewhat greater than in repeat examinations, since the latter do not require analysis of past years’ transactions. Considerable savings in the cost of the audit may be made by utilizing the services of your accounting staff to help us in certain phases of the work. We can arrange for your employees to prepare for us a number of working papers. If you approve, we shall indicate to your chief accountant the exact nature of the working papers to be prepared.

Our audit will be performed in accordance with auditing standards generally accepted in the United States and will include all procedures that we consider necessary to provide a basis for expression of our opinion on the fairness of the financial statements. The audit will include:

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(1) Obtain an understanding of the client and its environment, including internal control
(2) Assessment of risks of material misstatement and design further audit procedures.
(3) Tests of the financial statement accounts and balances to the extent we consider necessary, based on our consideration of risks and internal control.
(4) Preparation of the federal and state income tax returns.
(5) Issuance of our auditor’s report upon your financial statements.

If our investigation indicates the desirability of any changes in internal control procedures, we shall prepare a report on this subject for your consideration. However, an audit cannot be relied upon to identify all weaknesses in internal control. The purpose of our audit is to enable us to express an opinion on the fairness of the financial statements; the audit is designed to provide reasonable, but not absolute, assurance of detecting material fraud and defalcations, and we will notify you if our audit does bring them to light.

Although it is not possible to determine in advance the exact number of days required for the engagement, our estimates indicate that the total fee will be between $12,500 and $15,000. The audit will be completed and our report submitted by March 1, 20__.

We would like an opportunity during the next few days to discuss with you and your chief accountant the nature of the preliminary work to be done by your staff. We shall also be pleased to answer any further questions that you may have concerning the determination of audit fees.

Very truly yours,

Carson, Robinson and Company, CPAs

6–45 SOLUTION: Precision Industries, Inc. (Estimated time: 20 minutes)

a. The auditors may be on hand during the last business day of the current period to note the serial number of the shipping advice for the last shipment. Since all shipments are FOB shipping point, shipping advises through this last serial number should be recorded as sales of the current year; shipping advises bearing subsequent numbers represent sales of the following year. The auditors may then determine that a proper cutoff has been made by noting the serial number of the shipping advises relating to sales recorded for several days before and after the balance sheet date.

For the above procedures to be effective, the auditors must determine that the client issues the shipping advises in sequential order. This can usually be accomplished by reviewing a sequential log of shipments maintained by the shipping department, or by reviewing bills of lading dated and signed by the common carrier.

b. The overall effect of a cutoff error in recording future sales revenue in the current year depends upon whether the client has also included the cost of these sales in the current year. If the cutoff error is limited to entries recording sales revenue, the current year’s sales, net income, accounts receivable (and/or cash), and retained earnings will be overstated by the sales price of the prematurely recorded shipments.
However, the recording of sales revenue is sometimes accompanied by entries charging cost of sales and reducing inventory. If these entries are made in the current year for goods shipped next period, the current year’s cost of good sold will be overstated and inventory will be understated. Prematurely recording the cost of these sales will partially offset the overstated revenue and limit the overstatement of the current year’s income, total assets, and retained earnings to the excess of the selling price of the shipments over their cost.

Ethics Case

6–46 SOLUTION: Tower & Tower (Estimated time: 35 minutes)

There is little guidance in authoritative pronouncements to aid auditors in making a decision whether or not to accept a client. Statement on Quality Control Standards, No. 1 states that:

Policies and procedures should be established for deciding whether to accept or continue a client in order to minimize the likelihood of association with a client whose management lacks integrity. Suggesting that there should be procedures for this purpose does not imply that a firm vouches for the integrity or reliability of a client, nor does it imply that a firm has a duty to anyone but itself with respect to the acceptance, rejection, or retention of clients. However, prudence suggests that a firm be selective in determining its professional relationships.

Thus, it is clear that a CPA firm should avoid situations that involve association with management that lacks integrity. However, professional judgment must be used to evaluate the facts bearing on the integrity of management.

Auditing standards indicate that the auditors should respond to fraud risks by changing the overall approach to the audit, altering audit procedures, or performing procedures to address the risk of management override.

a. The following are arguments that support acceptance of the client:

- We are in the auditing business. Some engagements involve more risk than others, but we can take the additional risk by designing a more thorough audit program, for which we will bill accordingly.

- You do not grow by turning down the tough engagements. Some firms will accept this client—why not us?

- Edmond probably has matured to a point where he would not engage in questionable activities.

- Even though Edmond lied to the IRS, he would probably not lie to his auditors.

- All other information about Edmond indicates that he is a man of integrity.
b. The following are arguments against acceptance of the client:

- The fact that the audit opinion will be used to obtain substantial additional financing makes this audit a high risk engagement.

- The incident with the IRS clearly indicates that Edmond lacks sufficient integrity. We should not be associated with his corporation.

- Management fraud is difficult to detect by customary audit procedures. If Edmond does elect to misstate the financial statements, it is possible that our audit procedures would fail to detect the irregularities.

- The only way to assure that the reputation of the firm is not questioned is to avoid such high risk audit engagements.

c. Our opinion:

We feel that the decision to accept this client depends on the degree of risk the firm is willing to accept. Since all other information indicates that Edmond is an individual of integrity, the acceptance of the client is appropriate, if the auditors recognize the high risk of the engagement and increase the extent of their auditing procedures accordingly. At the first indication of inappropriate behavior on the part of Edmond, the firm should resign from the engagement.
### CHAPTER 6 APPENDIX AUDIT CASE EXERCISES

#### 6C–1 SOLUTION: KCN Analysis of Audit Plan (Estimated time: 35 minutes)

<table>
<thead>
<tr>
<th>Section</th>
<th>Purpose</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OBJECTIVES OF THE ENGAGEMENT</strong></td>
<td>To describe the services that are to be rendered to the client.</td>
<td>The objectives are (1) audit of KCN’s financial statements for the year ended 12/31/X5, and (2) issuance of a letter on compliance with covenants of the client’s letter of credit agreement.</td>
</tr>
<tr>
<td><strong>BUSINESS AND INDUSTRY CONDITIONS</strong></td>
<td>To describe the nature of KCN’s business and industry.</td>
<td>KCN sells and services microcomputers, networking hardware and software to business customers. The industry is sensitive to economic conditions and very competitive, with KCN competing with companies much larger than itself. KCN’s long-term success depends on its ability to attract and retain qualified information technology personnel. The annual growth in spending for information technology products and services is expected to be 3 percent per year for the next three years.</td>
</tr>
<tr>
<td><strong>PLANNING MEETINGS</strong></td>
<td>To indicate meetings held with client and with CPA engagement team.</td>
<td>At this point, one meeting has been held with client personnel and one with the engagement team.</td>
</tr>
<tr>
<td><strong>OWNERSHIP AND MANAGEMENT</strong></td>
<td>To describe the owners and management of the company.</td>
<td>Terry Keystone, Mark Keystone, John Keystone, Keith Young, and Rita Young privately own KCN. Terry and Mark Keystone participate in management.</td>
</tr>
<tr>
<td><strong>OBJECTIVES, STRATEGIES, AND BUSINESS RISKS</strong></td>
<td>To describe KCN’s business objectives, major strategies and the risks related to achieving its objectives.</td>
<td>The major objective of KNC is to increase revenues by 6 percent and increase net income by 8 percent for each of the next 3 years. Major strategies include: (1) aggressive advertising, (2) sales to customers with higher risk profiles, and (3) new software development. The primary risks include (1) advertising may not create the desired results, (2) credit losses may exceed benefits of increased sales, and (3) software development activities may not produce products.</td>
</tr>
<tr>
<td><strong>MEASUREMENT AND REVIEW OF FINANCIAL PERFORMANCE</strong></td>
<td>To describe the methods used by management to monitor performance.</td>
<td>Measures used to monitor performance include: (1) inventory and receivables turnover, (2) aging of accounts receivable, (3) sales and gross margins</td>
</tr>
</tbody>
</table>
## Chapter 06 - Audit Planning, Understanding the Client, Assessing Risks, and Responding

<table>
<thead>
<tr>
<th>PROCEDURES TO OBTAIN AN UNDERSTANDING OF THE CLIENT AND ITS ENVIRONMENT</th>
<th>To describe the procedures used by the auditors to obtain an understanding of the client and its environment.</th>
<th>The procedures used include (1) review of information from the prior-year’s audit, (2) inquiries of management, (3) reading board minutes, (4) review of monthly performance reports, (5) review of industry reports, review of the company’s website, and (6) review of articles in <em>The Wall Street Journal</em>.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGNIFICANT RISKS</td>
<td>To describe the significant risks identified by the auditors.</td>
<td>Two significant risks were identified: (1) KCN has engaged in a strategy to sell to customers with higher credit risk, and (2) the officers of the company receive significant bonuses based on quarterly results.</td>
</tr>
<tr>
<td>SIGNIFICANT ACCOUNTING AND AUDITING MATTERS</td>
<td>To describe particular accounting and auditing matters of concern.</td>
<td>Three particular concerns exist: (1) proper accounting for extended warranties, (2) capitalization of software costs, and (3) possible impairment of software.</td>
</tr>
<tr>
<td>PLANNING MATERIALITY</td>
<td>To identify an amount to be used as a measure for planning materiality.</td>
<td>Based on an analysis of sales, total assets, and pretax net income, an amount of $300,000 will be used as a measure of planning materiality.</td>
</tr>
<tr>
<td>SCHEDULING AND STAFFING PLAN</td>
<td>To provide the schedule for major portions of the audit, and the staffing requirements for the engagement.</td>
<td>The section includes major dates beginning with interim audit work through the issuance of an updated management letter. A total of 195 hours are budgeted for the audit.</td>
</tr>
</tbody>
</table>

### 6C–2 SOLUTION: KCN Risks (Estimated time: 20 minutes)

<table>
<thead>
<tr>
<th>Risk</th>
<th>Implications and Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. KNC has engaged in a strategy to sell to customers with higher credit risk.</td>
<td>The implication of this factor is there may be an increased risk of misstatement of bad debt expense and the allowance for bad debts. The auditors may decide to assign a more experienced auditor to this audit area. In addition, the auditors will decide to increase the evidence related to the adequacy of the allowance by perhaps examining the credit worthiness of more of the accounts. In addition, the auditors should not rely on tests of related controls that were performed in prior periods.</td>
</tr>
<tr>
<td>2. The officers of the company receive significant bonuses based on quarterly results.</td>
<td>The implication of this factor is an increased risk that management may misstate quarterly results to maximize bonuses. The auditors may respond by adjusting the staffing of the engagement, increasing the level of skepticism, adding more unpredictability to the audit procedures, or increasing the evidence collected. The auditors may also increase the extent of the procedures directed at quarterly results.</td>
</tr>
</tbody>
</table>
6C–3 SOLUTION: KCN Capitalization of Software Development Costs (Estimated time: 60 minutes)

a. KEYSWONE COMPUTERS & NETWORKS, INC.
December 31, 20X5

Memorandum on Accounting Issues—Accounting for Extended Warranties

In 20X4 KCN began developing networking software product for sale. This year the company has started capitalizing certain costs of development. FASB Statements (FAS) Nos. 2 and 86, and to a lesser extent, FASB Interpretation No. 6 (FIN 6) provide guidance in this area. FAS 2 makes clear that the nature of the activity for which the software is being developed should be considered in determining whether software costs should be included or excluded in research and development (para. 31). FIN 6 indicates that to the extent that the acquisition, development, or improvement of a process by an enterprise for use in its selling or administrative activities includes costs for computer software, those costs are not research and development costs. Examples of such costs include development of a general management information system and the computerized reservation system of an airline. This does not appear to be the type of costs involved in this situation.

FAS 86 further clarifies the issue by stating that all costs incurred to establish the technological feasibility of a computer software product to be sold, leased or otherwise marketed are research and development costs (para. 3). The technological feasibility of a product is established when the enterprise has completed all planning, designing, coding, and testing activities that are necessary to establish that the product can be produced to meet its design specifications including functions, features, and technological performance requirements. Paragraph 4 of FAS 86 provides a summary of tests to indicate whether technological feasibility has been established.

Costs incurred subsequent to establishing technological feasibility are to be capitalized. The capitalization of computer software costs ceases when the product is available for general release to customers. Costs of maintenance and customer support should be charged to expense when related revenue is recognized or when the costs are incurred, whichever occurs first.

Warren Love
(Date)

b. The major audit issue involved will be determining that the client has properly categorized costs between research and development (those costs involved in establishing technological feasibility) and those costs that should be capitalized. The auditors will have to determine at what point the software product reached the point of technological feasibility.
KCN Ratio Analysis (Estimated time: 60 minutes)

Keystone Computers & Networks, Inc.
Analytical Review Ratios for the Period Ended December 31, 20X5

<table>
<thead>
<tr>
<th></th>
<th>12/31/X5</th>
<th>12/31/X4</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Ratio</td>
<td>1.144</td>
<td>1.215</td>
<td>1.300</td>
</tr>
<tr>
<td>Days’ Sales in Accounts Receivable, Computed with Average Accounts Receivable</td>
<td>37.0</td>
<td>33.2</td>
<td>37.00</td>
</tr>
<tr>
<td>Allowance for Doubtful Accounts / Accounts Receivable</td>
<td>1.0%</td>
<td>1.1%</td>
<td>—</td>
</tr>
<tr>
<td>Bad Debt Expense / Net Sales</td>
<td>0.3%</td>
<td>0.2%</td>
<td>—</td>
</tr>
<tr>
<td>Total Liabilities to Net Worth</td>
<td>3.5%</td>
<td>2.7%</td>
<td>2.900</td>
</tr>
<tr>
<td>Return on Total Assets</td>
<td>7.5%</td>
<td>30.5%</td>
<td>29.0%</td>
</tr>
<tr>
<td>Return on Net Worth</td>
<td>0.2%</td>
<td>1.0%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Gross Profit / Net Sales</td>
<td>22.1%</td>
<td>23.2%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Selling, Operating and Administrative Expense</td>
<td>21.2%</td>
<td>21.4%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Times Interest Earned</td>
<td>1.7</td>
<td>4.1</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Details of Computations of 20X5 ratios

<table>
<thead>
<tr>
<th>Current Ratio</th>
<th>Current Assets / Current Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$11,845,852 / $10,352,563 = 1.144</td>
</tr>
</tbody>
</table>

| Days Sales in A/R Computed with Average A/R | Sales per day = Sales / 365 |
|                                             | = $92,586,051 / 365 = $253,660 |
|                                             | Average A/R = (Beg. A/R + End A/R) / 2 |
|                                             | = ($8,534,524 + $10,235,457)/2 |
|                                             | = $9,384,991 |
|                                             | Days sales = Average A/R / Sales per day |
|                                             | = $9,384,991 / $253,660 = 36.99 |

| Allowance for Bad Debts / A/R | $104,000 / $10,235,457 = .010 |

| Bad Debts Expense / Net Sales | $256,678 / $92,586,051 = .003 |

| Total Liabilities to Net Worth | Total Liabilities / Stockholders’ Equity |
|                               | $10,776,243 / $3,053,855 = 3.53 |

| Return on Total Assets | Net Income / Total Assets |
|                       | $229,877 / $13,830,098 = 0.017 |
Return on Net Worth | Net Income / Stockholders’ Equity  
| $229,877 / $3,053,855 = 0.0753 |

Return on Net Sales | Net Income / Net Sales  
| $229,877 / $92,586,051 = 0.002 |

Gross Profit / Net Sales | Gross Profit / Net Sales  
| $20,451,485 / $92,586,051 = 0.221 |

Selling, Operating and Admin. Expense / Net Sales | Selling, Operating and Admin. Exp. / Net Sales  
| $19,655,459 / $92,586,051 = 0.212 |

Times Interest Earned | Operating Income / Interest Expense  
| $796,026 / $476,899 = 1.7 |

(b) and (c) This part of the problem reveals how difficult ratio analysis is when there are no major changes in ratios. However, the following might be considered:

**Days Sales in Accounts Receivable**
- Changes in credit policy
- Worse economic conditions
- Change in customer mix
- Overstatement of receivables

**Increase in Bad Debt Expense and reduction in Allowance for Doubtful Accounts**
- Change in write-off policy
- Understatement of the Allowance for Doubtful Accounts
- Improving forecast of economic conditions
- Change in customer mix

**Return on Net Worth and Return on Total Assets**
- Less profitability
- Understatement of net income
- Overstatement of equity with related overstatement of assets

**Return on Net Sales**
- Overstatement of sales
- Understatement of net income

**Gross Profit / Net Sales**
- Change in sales mix
- Inability to pass on cost increases
- Less efficient operations
- Overstatement of cost of goods sold and related understatement of inventory

**Times Interest Earned**
• Overstatement of interest expense
• Increase in interest rates
• Understatement of net income

A number of the other ratios show significant changes that seem due primarily to the reduced level of profitability.