The Conceptual Framework of Accounting

I - The definition of Accounting: accounting is the process of identifying, recording, and communicating financial information about the economic events in entities to the interested users according to a conceptual framework.

II- Conceptual framework: the conceptual framework of accounting is a coherent system of interrelated objectives and fundamentals that can lead to consistent standards and that prescribes the nature, function and limits of financial accounting and financial statements.

III- Basic objectives of financial reporting: the objectives of financial reporting are to provide information that is:
1. Useful to those making investment and credit decisions who have a reasonable understanding of business and economic activities.
2. Helpful to current and potential investors, creditors, and other users in assessing the amounts, timing, and uncertainty of future cash flows.
3. About economic resources (assets), claims to these resources (liabilities), and the changes in them.

IV- Fundamental concepts: the fundamental concepts of the conceptual framework are concerned with the followings:
a- Qualitative characteristics of accounting information.
b- Basic elements of the financial statements.

A-Qualitative characteristics of accounting information: Accounting information should present the most useful information for decision-making purposes, and for those information to be useful they should be relevant, reliable, comparable and consistent.

Relevance: relevant information has either predictive or feedback value or both in addition to timeliness.

Predictive value, helps users to forecast future events.
Feedback value: confirms or corrects prior expectations. Timeliness: it must be available to decision-makers before it loses its capacity to influence decisions.

Reliability: reliable information means that the information is free of error and bias, therefore; accounting information in order to be reliable it should be verifiable and neutral in addition to the fact that it should be a faithful representation.

Verifiable: it means that we must be able to prove that it is free of error and bias.

Neutral: it cannot be selected, prepared, or presented to favor one set of interested users over another. Faithful representation: it must be factual.

Comparability: comparable accounting information means that it has been measured and reported in a similar manner for different enterprises so that financial statements users can use them for resource allocation decisions and to evaluate the alternatives.
**Consistency:** consistent accounting information means when an entity applies the same accounting treatment to similar events from period to period.

**B- Basic elements of the financial statements:**
The first group of these elements - assets, liabilities, and equity - describes amounts of resources and claims to resources at a moment in time, while the other elements describe transactions, and events that affect an enterprise during a period of time.

1. **Assets:** probable future economic benefits obtained or controlled by a particular entity as a result of past transaction or event.
2. **Liabilities:** probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.
3. **Equity:** residual interest in the assets of an entity that remains after deducting its liabilities.
4. **Investment by owners:** increases in net assets of a particular enterprise resulting from transfers to it from other entities of something of value like assets or services to obtain or increase ownership interests (or equity) in it.
5. **Distributions to owners:** decreases in net assets of a particular enterprise resulting from transferring assets, rendering services, or incurring liabilities by the enterprise to owners. These distributions decreases the ownership interests in the enterprise.
6. **Comprehensive income:** change in equity (net assets) of an entity during a period from transactions and other events and circumstances from non-owner sources.
7. **Revenues:** inflows or other enhancements of assets of an entity or settlement of its liabilities or both during a period from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations.
8. **Expenses:** outflows or other using up of assets or incurrence of liabilities or both during a period from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major or central operations.
9. **Gains:** increases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity during a period except those result from revenues or incurrences by owners.
10. **Losses:** decreases in equity from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity during a period except those that result from expenses or distribution to owners.

**V- BASIC PRINCIPLES OF ACCOUNTING:**
Four basic principles of accounting are used to record transactions:

1) **Historical cost**
2) **Revenue recognition**
3) **Matching principle**
4) **Full disclosure**
1) Historical cost: although there are some exceptions to the rule, cost is the basis used in preparing financial statements.
The historical cost principle dictates that assets and liabilities be recorded at their cost because it is both relevant and reliable.
Cost is relevant because it represents the price paid, the assets sacrificed, or the commitment made at date of acquisition.
Cost is reliable because it is objectively measurable, factual, and verifiable.

2) Revenue recognition: revenue is generally recognized when;
Realized: when products (goods or services) or other assets are exchanged for cash or claims to cash.
Realizable: when assets received or held are readily convertible into cash or claims to cash. assets are readily convertible when they are salable or interchangeable in an active market at readily determinable prices without significant additional cost.
Earned: revenue are considered earned when the entity has substantially accomplished what it must do to be entitled to the benefits Represented by revenues.
Generally, recognizing revenue at the time of sale provides a uniform and reasonable test, however, there are some exceptions to the rule especially when the basic rule is difficult to apply:
a. During production: recognition of revenue is allowed before the contract is completed in certain long-term construction contracts that revenue is recognized periodically based on the percentage of the job that has been completed instead of waiting until the entire job to be totally completed.
b. End of production: revenue might be recognized after the production cycle is completed but before the sale takes place like gold, livestock.
c. Receipt of cash: revenues can be recognized at the time of the receipt of cash. This cash basis approach should be used only when it is impossible to establish the revenue figure at the time of sale because of the uncertainty of collection.

3) Mat chins principle: matching principle dictates that expenses (expired costs) be matched With revenues whenever it is reasonable and practical to do so.
Generally costs are classified as either product costs or period costs.
Product costs like direct material, direct labor, and overhead are carried into future period if the revenue from the product is recognized in future periods. On the other hand, period costs such as selling and administrative expenses are charged off immediately because no direct relationship between period costs and revenue can be determined.

4) Full disclosure principle: the full disclosure principle requires that circumstances and events that make difference to financial statement users be disclosed.
Compliance with this principle occurs through the data - disclosed in the financial statements, notes to the financial statements, and supplementary information accompany the financial statements.
Exercise:
Presented below are a number of business transactions that occurred during the current year for MacDonald Co . Ltd.

1- Because the general level of prices increased during the current year, MacDonald determined that there was a $100,000 understatement in the equipment value and a $20,000 understatement of depreciation expense on the same equipment and decided to record the following entries in its accounts:

| Equipment                                 | 100,000 |
| Gain                                      | 100,000 |
| Depreciation Expense                      | 20,000  |
| Accumulated Depreciation                  | 20,000  |

2- Because of a "fire sale", an equipment obviously worth $150,000 was acquired at a cost of $130,000. The following entry was recorded:

| Equipment                                 | 150,000 |
| Cash                                      | 130,000 |
| Revenue                                   | 20,000  |

3- The company wants to report its merchandise inventory that cost $250,000 at $280,000 its value in the market. The following entry was made to record this increase in value:

| Merchandise Inventory                     | 30,000  |
| Income                                    | 30,000  |

Required: Discuss the appropriateness of each one of the above mentioned entries in terms of Generally Accepted Accounting Principles GAAP.
THE ACCOUNTING CYCLE

1- Identification and Recording of Transactions and Other Events: an item should be recognized in the financial statements if it is an element, is measurable, and is relevant and reliable. Skilled employees are an important asset, but the problems of determining their value and measuring it reliably have not yet been solved.

2- Journalization - the journal is a chronological listing of transactions and other events expressed in terms of debits and credits to particular accounts.

Example:

Assume the following balances for Microsoft Inc. as of December 31, 2004:
- Capital $11,000
- Furniture 7,000
- Inventory 4,000
- Accounts receivable 3,000
- Cash 15,000
- Accounts payable 5,000
- Notes payable 13,000

Dec. 1 Purchases a new delivery truck on account from Al Sham Co. for $25,500.
3 Receives an invoice from Wall Street journal for an advertisement of $400.
4 Purchases of goods (merchandise) on account from MQ Co. for $20,000
5 Pays $3,000 to MQ Co.
6 Receives a $200 debit memo (debit note) from DHL Inc. indicating the cost of the freight on purchases.

<table>
<thead>
<tr>
<th>Date</th>
<th>GENERAL JOURNAL</th>
<th>Page 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec.</td>
<td>Account Title and Explanation</td>
<td>Ref</td>
</tr>
<tr>
<td>1</td>
<td>Dr. Delivery Equipment</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Cr. Accounts Payable</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>(Purchased delivery truck on account from Al Sham Co.)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Dr. Advertising Expenses</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Cr. Accounts Payable</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>(Received invoice for advertising from Wall Street Journal)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dr. Purchases</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Cr. Accounts payable</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>(Purchased merchandise on account from MQ Co.)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Dr. Accounts Payable</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Cr. Cash</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>(recording a payment to MQ Co.)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Dr. transportation in</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Cr. Accounts payable</td>
<td>34</td>
</tr>
</tbody>
</table>
3- Posting to the Ledger - is the transfer of items in a general Journal to the general ledger.

<table>
<thead>
<tr>
<th>Description</th>
<th>No.</th>
<th>Opening balance</th>
<th>Dec. 1 Delivery Equip</th>
<th>3 Advertising Exp</th>
<th>4 Purchases</th>
<th>Ending balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Equipment</td>
<td>No.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25,500</td>
</tr>
<tr>
<td>Dec. 1 Accounts payable 25,500</td>
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</tr>
<tr>
<td>Ending balance</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>25,500</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>No.34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec. 4 Cash 3,000</td>
<td></td>
<td>5,000</td>
<td>25,500</td>
<td>400</td>
<td>20,000</td>
<td>48,100</td>
</tr>
<tr>
<td>Dec. 1 Delivery Equip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Advertising Exp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Purchases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ending balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>No.52</td>
<td>15,000</td>
<td>15,000</td>
<td>3,000</td>
<td></td>
<td>12,000</td>
</tr>
<tr>
<td>Opening balance 15,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec. 4 Accounts payable 3,000</td>
<td></td>
<td>3,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ending balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,000</td>
</tr>
<tr>
<td>Transportation in</td>
<td>No.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec. 6 Accounts payable 200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
</tr>
<tr>
<td>Ending balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertising Expenses</td>
<td>No.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec. 3 Accounts payable 400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Ending balance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchases</td>
<td>No.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec. 4 Accounts payable 20,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20,000</td>
</tr>
<tr>
<td>Ending balance</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
4- Unadjusted Trial Balance
Such trial balance should be prepared at the end of a given period after the entries have been recorded in the journal and posted to the ledger. It is a list of all open accounts in the general ledger and their balances. It accomplishes two principle purposes:
1. It proves that debits and credits of an equal amount are in the ledger, and
2. It supplies a listing of open accounts and their balances; it is the basis for any adjustments, and it is used in preparing the financial statements and in supplying financial data about the concern.
A trial balance, however, does not prove that all transactions have been recorded or that the ledger is correct.

MICROSOFT INC. Trial Balance December 31, 2004

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$12,000</td>
</tr>
<tr>
<td>Furniture</td>
<td>7,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>3,000 400</td>
</tr>
<tr>
<td>Advertising expenses</td>
<td>25,500</td>
</tr>
<tr>
<td>Delivery equipment</td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td></td>
</tr>
<tr>
<td>Capital</td>
<td>200</td>
</tr>
<tr>
<td>Transportation in</td>
<td>11,000</td>
</tr>
<tr>
<td>Purchases</td>
<td>20,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>4,000</td>
</tr>
<tr>
<td>Notes payable</td>
<td>13,000</td>
</tr>
<tr>
<td>________________</td>
<td>________________</td>
</tr>
<tr>
<td></td>
<td>72,100</td>
</tr>
<tr>
<td></td>
<td>72,100</td>
</tr>
</tbody>
</table>

CONTINUE OF THE ACCOUNTING CYCLE:
1 - Identification and Recording of Transactions and Other Events:
2- Journalization
3- Posting to the Ledger
4- Preparation of Unadjusted Trial Balance
5- Adjusting Entries:
In order for revenues to be recorded in the period in which they are earned, and for expenses to be recognized in the period in which they are incurred, adjusting entries are made at the end of the accounting period. Accordingly, adjusting entries are needed to ensure that the revenue recognition and matching principles are followed.

Types of Adjusting Entries:
Adjusting entries can be classified as either prepayments or accruals. Each of these classes has two subcategories as shown below:
1- Prepaid Expenses: represent payments of expenses that will benefit more than one accounting period. Prepayments expire either with the passage of time (e.g. Rent, insurance and advertising) or through use and consumption (e.g. Supplies and stationary). Prepaid expense adjusting entry will be:
   Dr. Expense Account
   Cr. Prepaid Account (Asset)

Example:
On November 1, MQ Inc. paid $12,000 for a one-year rent. The amount was charged to Prepaid rent when it was paid, and this account shows a balance of $12,000 in the December n trial balance. Thus, $1,000 of rent expires each month. The following adjusting entry is needed:
   Dr. Rent expense 2,000
   Cr. Prepaid rent 2,000
   (To record rent expense)

2- Unearned Revenue: represents revenues received in cash and recorded as liabilities before they are earned (e.g. rent received in advance, subscriptions received in advance by publishers). The adjusting entry for unearned revenues will be:
   Dr. Liability Account
   Cr. Revenue Account
Example:
CSC received $20,000 on July 15, 2004 for teaching services expected to be started on August 1 and completed by December 31. The payment was credited to Unearned Fees, and this account shows a balance of $20,000 in the November 31 trial balance. Thus $16,000 of those fees has been earned in November and the required adjusting entry will be:

Dr. Unearned fees 16,000
Cr. Fees earned 16,000

3- Accrued Expenses: expenses incurred but not yet paid in cash or recorded (e.g. Interest, rent and salary).
The adjusting entry for accrued expenses will be:

Dr. Expense account
Cr. Liability account

(To record fees earned)
Example:
ABC trial balance ahs shows a balance of $11,000 as of December 31, 2004. Assuming the monthly salary is $1,000. The adjusting entry will be:

Dr. salaries expense 1,000
Cr. Salaries payable 1,000
(To record accrued salaries)

4- Accrued Revenues: represent revenues earned but not yet received in cash or recorded (e.g. interest, rent and fees).

An adjusting entry for accrued revenues will be:

**Dr. Asset Account**

**Cr. Revenue Account**

Example:
In October XYZ earned $2,000 in fees for advertising services that were not billed to clients before December n. Because these services have not been billed, they have not been recorded. Accordingly, the adjusting entry will be:

Dr. Accounts receivable 2,000
Cr. Fees earned 2,000
(To accrue fees earned but not billed or collected)

5- Estimated Items: represent amounts that are estimated based on management belief or future expectations (e.g. Uncollectible accounts receivable and depreciation of fixed assets).

**Dr. Expense**

**Cr. Contra Account (Presented as a deduction of the original account)**

Example:
Referring to the previous example, assume that the equipment value is $25,500 and the estimated useful life is 5 years starting August 1, 2004. The adjusting entry will be:

Dr. Depreciation expense 2,125
Cr. Accumulated depreciation 2,125
(To record monthly depreciation)

6- Preparation of an Adjusted Trial Balance:
An adjusted trial balance is prepared from the ledger accounts after all adjustments have been journalized and posted.

7- Preparation of the financial statement:
After the preparation of the adjusting entries, four basic financial statements should be prepared: Income statement, retained Earnings, Balance Sheet and Cash flows.

**A-Balance sheet: which shows the financial condition of an enterprise at the end of the period.**

**B-Income statements: which measures the results of operation during the period.**

**C-Statement of cash flows: which reports the cash inflows and outflows from operating, investing and financing activities during the period.**

**D-Statement of retained earnings: which reconciles the balance of the retained earnings account from the beginning to the end of the period.**

8- Year-end closing:
A after preparing the financial statements, all revenue and expense accounts are closed into Income Summery. The Income Summery is closed into the Retained Earnings, and if there are any Dividends to be distributed, they are distributed from Retained earnings.

9- Post - closing trial balance:
Post - closing trial balance is prepared immediately after closing entries have been posted.

INCOME STATEMENT

I- TYPES OF INCOME STATEMENT:
A - Single-Step Income Statements
In the single-step statement, just two groupings exist: revenues and expenses. Expenses are deducted from revenues to arrive at net income or loss.
The primary advantage of the single-step format lies in the simplicity of presentation and the absence of any implication that one type of revenue or expense item has priority over another.

AL RAFAH COMPANY INCOME STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 2004

Revenues:
Net sales                           $ 10,000
Dividends revenue                  8,000
Rental revenue                     18,000
Total revenues                     36,000

Expenses
Cost of goods sold                 6,000
Selling expenses                   2,500
Administrative expenses           3,500
Interest expense                   1,800
Income tax expense                 2,200
Net income                         $ 20,000
Earnings per common share          20

B - Multiple-Step Income Statements
When a multiple-step income statement is used, some or all of the following sections or subsections may be prepared:
1- Operating Section. A report of the revenues and expenses of the company's principal operations.
(a) Sales or Revenue Section. A subsection presenting sales, discounts, allowances, returns, and other related information. Its purpose is to arrive at the net amount of sales revenue.
(b) Cost of Goods Sold Section. A subsection that shows the cost of goods that were sold to produce the sales.
(c) Selling Expenses. A subsection that lists expenses resulting from the company's efforts to make sales.
(d) Administrative or General Expenses. A subsection reporting expenses of general administration.
2- Nonoperating Section. A report of revenues and expenses resulting from secondary or auxiliary activities of the company. In addition, special gains and losses that are INFREQUENT OR UNUSUAL, BUT NOT BOTH, are normally reported in this section. Generally these items break
down into two main subsections:
(a) Other Revenues and Gains. A list of the revenues earned or gains incurred, generally net of related expenses, from nonoperating transactions.
(b) Other Expenses and Losses. A list of the expenses or losses incurred, generally net of any related incomes, from nonoperating transactions.
3- Income Tax. A short section reporting federal and state taxes levied on income from continuing operations.
4- Discontinued Operations. Material gains or losses resulting from the disposition of a segment of the business.
5- Extraordinary Items. Unusual and infrequent material gains and losses.
6- Cumulative Effect of a Change in Accounting Principle.
7- Earnings Per Share.

II- REPORTING IRREGULAR ITEMS:
1- Discontinued operations:
The results of operations of a component of an entity that either (1) has been disposed of or (2) is classified as held for sale are reported in discontinued operations if both of the following conditions are met:
1. The operations and cash flows of the component have been (or will be) eliminated from the ongoing operations of the entity as a result of the disposal transaction, and
2. The entity will not have any significant continuing involvement in the operations of the component after the disposal transaction.
Gains or losses from discontinued operations should be shown net of tax.

Example
Division X (furniture line) is losing $200 per month, and management of ABC Company, which includes Division X, discovers this on March 31, 2003. The Board of Directors decides on April 30, 2003 to dispose of Division X. The carrying value of Division X on April 30, 2003 was $4,000 and its fair value was $2,200.
After months of negotiations, the division's net assets were sold on June 30, 2004 for $2,000. In the meantime, Division X had continued losing $200 per month.
ABC Company's income tax rate is 40 %
Required: how should the disposal of Division X be reported on ABC Company's 2003 and 2004 financial statements?
Answer:
Reporting/or 2003 would be as follows:
DISCONTINUED OPERATIONS
Loss from operations of held - for - sale Division X $4,200
(including impairment loss of$ 1,800
Income tax benefit 1,680
Loss on discontinued operations 2,520
Reporting/or 2004 would be as follows:

**DISCONTINUED OPERATIONS**

Loss for operations of held - for - sale Division X (including disposal loss of $ 200 ) $1,400
Income tax benefit 560
Loss on discontinued operations $ 840

Disposal of assets that do NOT qualify as disposals of a segment of a business include:

1. Disposal of part of a line of business.
2. Shifting, production or marketing activities for a particular line of business from one location to another.
3. Phasing out of a product line or class of service.
4. Other changes due to technological improvement.

**2- Extraordinary Items:**

UNUSUAL AND INFREQUENT material gains and losses such as losses due to an earthquake or a hurricane.

The following are not considered extraordinary items:

a. Write down or write-off of receivables, inventories, or other assets.

b. Gains or losses on disposal of a segment of a business.

c. Other gains and losses from sale or abandonment of property, plant, or equipment used in the business.

d. Effects of a strike, including those against competitors and major suppliers.

Extraordinary win or loss should be shown net of tax.

**3- Changes in Accounting Principle:**

Changes in accounting principle would include a change in the method of inventory pricing from FIFO to average cost or a change in depreciation from the double- declining to the straight-line method.

Changes in accounting principle are recognized by including the cumulative effect as of the beginning of the year, net of tax in the current year's income statement. This amount is based on a retroactive computation of changing to a new accounting principle.

**Example:**

Al Sham Inc. decided in March 2004 to change from the sum-of- the-years' -digits method of computing depreciation on its plant assets to the straight-line method. The assets originally cost $10,000 in 2002 and have a service life of four years. The effect of this change is computed as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Sum-of-the-Years'- Digits Depreciation</th>
<th>Straight line Depreciation</th>
<th>Excess of Sum-of-the- Years'- Digits over Straight Line Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>4,000</td>
<td>2,500</td>
<td>1,500</td>
</tr>
<tr>
<td>2003</td>
<td>3,000</td>
<td>2,500</td>
<td>500</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2,500</td>
<td>2,000</td>
</tr>
</tbody>
</table>
4-Changes in Estimates
Estimates are made, for example, of useful lives and salvage values of depreciable assets, and uncollectible receivables... etc. Changes in the estimates are accounted for in the period of change if they affect only that period, or in the period of change and future periods if the change affects both. Changes in the estimates are not carried back to adjust prior periods. In addition, they are not considered errors (prior period adjustments) or extraordinary items.

Example
CSC has estimated the useful life of its building at 25 years. CSC purchased the building of January 1, 2000 for $100,000. On January 1, 2004 CSC has determined that the useful life of the building will not be more than 20 years. Accordingly CSC will record the following entry to depreciate the building at December 31, 2004:
Dr. Depreciation expense 5250
Cr. Accumulated depreciation 5250

Earnings per Share
The computation of earnings per share is usually straightforward. Net income minus preferred dividends (income available to common stockholders) is divided by the weighted average of common shares outstanding to arrive at earnings per share.

RETAINED EARNINGS STATEMENT
Net income increases retained earnings and a net loss decreases retained earnings. Both cash and stock dividends decrease retained earnings. Prior period adjustments may either increase or decrease retained earnings. A prior period adjustment is a correction of an error in the financial statements of a prior period. Prior period adjustments (net of tax) are charged or credited to the opening balance of retained earnings, and thus excluded from the determination of net income for the current period.

CSC Company
Statements of retained earnings
For the year ended Dec/31/2004

<table>
<thead>
<tr>
<th></th>
<th>XXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning balance/I</td>
<td></td>
</tr>
<tr>
<td>+ - prior period adjustment</td>
<td>+- XX</td>
</tr>
<tr>
<td>Adjusted Beginning balance</td>
<td>XXX</td>
</tr>
<tr>
<td>Add: net income</td>
<td>+XXX</td>
</tr>
<tr>
<td>Less: dividends</td>
<td>-XXX</td>
</tr>
<tr>
<td>Ending balance 31/12</td>
<td>XXX</td>
</tr>
</tbody>
</table>

Prior period adjustments
A prior period adjustment is a correction of an error in the financial statements of a prior period; they may either increase or decrease retained earnings. Prior period adjustments (net of tax) are excluded from the determination of net income for the current period.

BALANCE SHEET
A Balance sheet is a statement which shows the financial position of an enterprise at the end of the period.

Component of the balance sheet:
1. Assets: the components of the assets section are as follows:
   a. Current assets: are cash and other assets expected to be converted into cash, sold or consumed either in one year or in the operating cycle which ever is longer.
   b. Long term investment: which are to be held for many years and not acquired to be disposed in the near future.
   c. Property, plant, and equipment: are properties of a durable nature used in the regular operations of the business.
   d. Intangible assets: which lack of physical substance and usually have a high degree of uncertainty concerning their future benefits.
   e. Other assets: which include assets that are not included in the above components.
2. Liabilities: the components of the liabilities section are as follows:
   a. Current liabilities: are the obligations that are reasonably expected to be liquidated either through the use of current assets or the creation of other current liabilities.
   b. Long term liabilities: are obligations that are not expected to be liquidated within the normal operating cycle but are payable at some date beyond that time.
3. Owners' equity: this section is divided into three parts:
   a. Capital stock: the par value of the shares issued.
   b. Additional paid in capital: the excess of amounts paid in over the par or stated value.
   c. Retained earnings: the corporation's undistributed earnings.

### ABC Corp.
#### Balance sheet as of December 31, 2004

<table>
<thead>
<tr>
<th>Assets</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>10,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>15,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>24,000</td>
</tr>
<tr>
<td>- Allowance for doubtful accounts</td>
<td>(2,000)</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>1,000</td>
</tr>
<tr>
<td>Total current assets</td>
<td>48,000</td>
</tr>
<tr>
<td>Long term investment</td>
<td></td>
</tr>
<tr>
<td>Investment in FAC Co.</td>
<td>40,000</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>24,000</td>
</tr>
<tr>
<td>Buildings</td>
<td>21,000</td>
</tr>
<tr>
<td>- Accumulated depreciation</td>
<td>(3,000)</td>
</tr>
<tr>
<td>Total Property, plant and equipment</td>
<td>42,000</td>
</tr>
<tr>
<td>Intangible assets</td>
<td></td>
</tr>
</tbody>
</table>
### Sham International Academy

#### Professional Practical Training

<table>
<thead>
<tr>
<th>Patent</th>
<th>15,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>145,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current liabilities</td>
<td></td>
</tr>
<tr>
<td>Notes payable</td>
<td>5,000</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>6,000</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>1,500</td>
</tr>
<tr>
<td>Tax payable</td>
<td>2,500</td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>15,000</td>
</tr>
</tbody>
</table>

| Long term debt: |        |
| Bonds'payable | 42,500 |
| Total liabilities | 57,000 |

<table>
<thead>
<tr>
<th>Stockholders' equity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock</td>
<td>50,000</td>
</tr>
<tr>
<td>Additional paid in capital</td>
<td>25,500</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>12,000</td>
</tr>
<tr>
<td>Total stockholders equity</td>
<td>87,500</td>
</tr>
<tr>
<td>Total liabilities and stockholders equity</td>
<td>145,000</td>
</tr>
</tbody>
</table>

---

**Example:**

The following date was derived from MQ's unadjusted trial balance on July 31, 2003:

- Advertising Supplies $25,000
- Insurance $30,000
- Unearned revenue $15,000
- Interest revenue $3,000
- Rent $6,000

An examination of the ledger has revealed the following:

1. The remaining advertising supplies at July 31, 2003 are $10,000.
2. The insurance policy is for 1 year started January 1, 2003.
3. Only $6,000 of the unearned revenues have been earned.
4. The interest revenue for the year is $5,000.
5. The monthly rent is $1,500.

**Required:**

1. Prepare the adjusting entries.
2. Determine the amounts that should be included in the Income statement for the year ended July 31, 2003.
3. Determine the amounts that should be included in the balance sheet as of July 31, 2003.
I. Definition:
Inventory is a tangible personal property, which is:
1. Held for sale in the ordinary course of business.
2. In process of production for such sale.
3. To be currently consumed in production of goods and services to be available for sale.

II. Major Classifications of Inventory:
A. Merchandising Companies:
Merchandise: goods purchased for resale.

B. Manufacturing companies:
1. Raw Materials: cost of goods and materials on hands that has not been placed into production.
2. Supplies: Items that are used in the production but are not the primary materials being processed.
3. Work in Process: cost of raw materials on which production has been started but not yet completed, plus the direct labor cost and a ratable share of manufacturing overhead costs.
4. Finished Goods: cost of completed but unsold units at the end of the fiscal period.

IV. Inventory Measurement and Control:
1. Perpetual System:
   • Under this system, all purchases and sales (issues) of goods are recorded in the Inventory account as they "occur. Also, the cost of goods sold can be determined with each sale.
   • Inventory is a control account that is supported by a subsidiary ledger of individual inventory records. The subsidiary records show the quantity and cost of each type of inventory on hand.
   • When there is a difference between the book balance and the physical inventory count, an adjusting entry is needed. This entry will debit the "Inventory" account and credit "Inventory' over and Short " account or vise versa according to the situation. " Inventory over and Short " account is an adjustment of the cost of goods sold.

2. Periodic System:
   • Under this system, purchases of goods are recorded by debiting an account called "Purchases".
   Fright - in, Purchase returns and allowances, and purchase discounts are recorded in separate accounts. The quantity of inventory on hand is determined only by a physical count.

Journal entries associated with these two systems are:

<table>
<thead>
<tr>
<th>Perpetual System</th>
<th>Periodic System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase 50 units (a), $ 40:</td>
<td></td>
</tr>
<tr>
<td>Dr. Inventory</td>
<td>Dr. Purchases</td>
</tr>
<tr>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Cr. Accounts payable or cash</td>
<td>Cr. Accounts payable or cash</td>
</tr>
<tr>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Pays Fright - in of $150 :</td>
<td></td>
</tr>
<tr>
<td>Dr. Inventory</td>
<td>Dr. Fright - in</td>
</tr>
<tr>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Cr. Accounts payable or cash</td>
<td>Cr. Accounts payable or cash</td>
</tr>
<tr>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

Purchase returns of 10 units, and purchase discounts offS 30:

<table>
<thead>
<tr>
<th>Dr. Accounts payable or cash 430</th>
<th>Dr. Accounts payable or cash 430</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cr. Inventory</td>
<td>Cr. Purchase returns and allowances 400</td>
</tr>
<tr>
<td>430</td>
<td>Cr. purchase discounts 30</td>
</tr>
</tbody>
</table>
Sale of soods coffins $800 at $1,000:

Dr. Cost of goods sold 800  
Cr. Inventory 800

Dr. Accounts receivables or cash 1,000  
Cr. Sales 1,000

The physical count of inventory revealed an amount of $1,520

No entry necessary.  
Inventory (ending, by count) 1,520
Purchase returns 400

Ending balance = 600 + 2000 + 150 - 430 - 800  
Purchases 2,000
Purchase discount 30

Cost of goods sold 800

Freight in 150

Under the periodical system, Cost of Goods Sold is computed as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>XXX</td>
</tr>
<tr>
<td>Purchases</td>
<td>XXX</td>
</tr>
<tr>
<td>- Purchase returns and allowances</td>
<td>XXX</td>
</tr>
<tr>
<td>- Purchase discount</td>
<td>- XXX</td>
</tr>
<tr>
<td>Net purchases</td>
<td>XXX</td>
</tr>
<tr>
<td>Freight and transportation in</td>
<td>XXX</td>
</tr>
<tr>
<td>Purchase commission</td>
<td>+XXX</td>
</tr>
<tr>
<td>Goods available for sale</td>
<td>XXX</td>
</tr>
<tr>
<td>Ending inventory</td>
<td>-XXX</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>XXX</td>
</tr>
</tbody>
</table>

Exercise:

If beginning inventory is $60,000, cost of goods purchased is $380,000, and ending inventory is $50,000, cost of goods sold is:

a. $390,000  
b. $330,000  
c. $370,000  
d. $420,000

V. Physical Goods to be Included in Inventory:

1. Purchases: purchases should be recorded when the legal title to the goods passes to the buyer. However, the general practice is to record acquisitions when the goods are received.
2. Goods in Transit, accounting of goods in transit - goods purchased but not yet received - depends on who owns them. a. If the goods are shipped F.O.B "Free On Board" Shipping Point, title passes to the buyer when the seller delivers the goods to the common carrier, who acts as an agent for the buyer.
   b. If the goods are shipped F.O.B "Free On Board" Destination, title does not pass to the buyer until the buyer receives the goods from the common carrier.
3. Consigned Goods, as part of their marketing activities, some companies consign goods' to others. In such cases, the consignor ships goods to the consignee who acts as an agent of the consignor and receives a commission when he sells the goods. The consignee is responsible to remit payment for the goods sold on a periodic basis to consignor.
Therefore, the consignor should include the consigned goods as inventory if they are relatively small or in a separate account if their value is material. Conversely, goods on consignment are NOT included in the consignee's inventory even though in the consignee's possession. Goods should be included in the inventory at purchase price or cost of production plus cost of shipping to the consignee.

VI. Effect of Inventory Errors:

Items incorrectly included or excluded in determining cost of goods sold will result in errors in the financial statements:

a. Ending inventory misstated: what would happen if the beginning inventory and purchases are recorded correctly but some items are not included in ending inventory? The effects of such a case are illustrated in the following schedule:

<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>Income Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>Understated</td>
</tr>
<tr>
<td>Retained earnings</td>
<td></td>
</tr>
<tr>
<td>Working capital</td>
<td></td>
</tr>
<tr>
<td>(current assets less current liabilities)</td>
<td></td>
</tr>
<tr>
<td>Current ratio: (current assets divided by current liabilities)</td>
<td>Cost of goods sold</td>
</tr>
<tr>
<td></td>
<td>Net income</td>
</tr>
</tbody>
</table>

b. Purchases and inventory misstated: what would happen if certain goods are owned by the company but not recorded as purchases and not counted in the ending inventory? The effects of such a case are illustrated in the following schedule:

<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>Income Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>Understated</td>
</tr>
<tr>
<td>Retained earnings</td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td></td>
</tr>
<tr>
<td>Working capital</td>
<td></td>
</tr>
<tr>
<td>Current ratio</td>
<td>Purchases</td>
</tr>
<tr>
<td></td>
<td>Cost of goods sold</td>
</tr>
<tr>
<td></td>
<td>Net income</td>
</tr>
<tr>
<td></td>
<td>Inventory (ending)</td>
</tr>
</tbody>
</table>
VII. What cost flow assumption should be adopted?

Accountants should choose one of the several systematic inventory cost flow assumptions. There is no requirement that the cost flow assumption adopted be consistent with the physical movement of goods. Cost flow assumptions are:

1. Specific identification:
   Requires identifying each item sold and each item in inventory. This method can be used only if it is practical to separate physically the different purchases made. Advantages:
   a. The costs are matched against actual revenues.
   b. Ending inventory is reported at actual cost.
   Disadvantages:
   a. It makes it possible to manipulate net income.

2. Average cost:
   This method prices items in the inventory on the basis of the average cost of all similar goods available during the period. Two averages are used:
   • Weighted average for periodic inventory.
   • Moving-average for perpetual inventory.
   To illustrate the two averages, assume that Ball Corp. used the periodic inventory method, the ending inventory and cost of goods sold would be computed as follows:

<table>
<thead>
<tr>
<th>Date of invoice</th>
<th>No. Units</th>
<th>Unit cost</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 10</td>
<td>2,000</td>
<td>$8.00</td>
<td>$16,000</td>
</tr>
<tr>
<td>April 20</td>
<td>6,000</td>
<td>8.80</td>
<td>52,800</td>
</tr>
<tr>
<td>April 30 -</td>
<td>2,000</td>
<td>9.50</td>
<td>+19,000</td>
</tr>
</tbody>
</table>

Weighted average cost per unit

Inventory in units 6,000

Value of ending inventory 6,000 X = 52,680

Cost of goods available for sale 87,800

Deduct ending inventory - 52,680

Cost of goods sold 35,120

Had Ball Corp. used the perpetual inventory method, the ending inventory and cost of goods sold would have been computed as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Purchased</th>
<th>Sold or issued</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 10</td>
<td>(2000@ 8.00)</td>
<td>$16,000</td>
<td>(2000@  )</td>
</tr>
<tr>
<td>April 20</td>
<td>(6000@ 8.8)</td>
<td>$52,800</td>
<td>(8000@  )</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Purchased</th>
<th>Solder issued</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 10</td>
<td>(2000@ 8.00)</td>
<td>$16,000</td>
<td>(2000@ )</td>
</tr>
<tr>
<td>April 20</td>
<td>(6000@ 8.8 )</td>
<td>$52,800</td>
<td>(2000@ )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6000@ )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>68.000</td>
</tr>
<tr>
<td>April 25</td>
<td></td>
<td>(2000@ )</td>
<td>(4000@ )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35.200</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$33,600</td>
</tr>
<tr>
<td>April 30</td>
<td>(2000@ 9.50)</td>
<td>$19,000</td>
<td>(4000@ )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2,000@ )</td>
</tr>
</tbody>
</table>

Advantages:
a. Ending inventory is close to current cost.

Disadvantages:
a. Current costs are not matched against current revenues on the income statement, which can lead to distortions in gross profit and net income.

Last-In, First-Put (LIFO)
LIFO method matches the cost of the last goods purchased against revenue. Ending inventory and cost of goods sold determined using LIFO method with the perpetual inventory system will result in different amounts when using the periodical inventory system.

Now, assume that Ball Corp. uses the periodic inventory system. The ending inventory and C of G S
will be:
Date of invoice   No. Units   Unit cost   Total cost

Ending inventory  6,000
Cost of goods available for sale  87,800
Deduct ending inventory         - 51,200
Cost of goods sold               $ 36,600

Had Ball Corp. used the perpetual inventory method, the ending inventory and cost of goods sold would be:

April 10  (2000@ 8.00)   $16,000   (2000@     )   16.000
April 20  (6000@ 8.8)    $52,800   (2000@     )   (6000@     )   68.800
April 25  (4000@     )   (2000@     )   $35,200   (2000@     )   33.600
April 30  (2000@ 9.50)   $19,000   (2,000@     )   (2,000@     )   (2,000@     )

Advantages:
a. It provides a better measure of current earnings, since the more recent costs are matched against current revenues.

Disadvantages:
a. LIFO ending inventory will be understated in the "inflationary times. This understatement might make the working capital of the company appear worse than it really is.
b. Using LIFO in the inflationary times might result in lower profit than it really is.
c. Involuntary liquidation: when the layers of old costs are eliminated, strange results might appear since old irrelevant costs can be matched against current revenues.

VIII. SPECIAL VALUATION METHODS:
There are instances in which an accountant must estimate the value of inventories without an actual physical count. Some of the methods used are the retail method, the LIFO retail method, and the gross profit method.

1- Retail method: The retailer can either take a physical inventory at retail prices or estimate ending retail inventory and then use the cost-to-retail ratio to convert the ending inventory at retail to its estimated cost. This eliminates the process of going back to original invoices or other documents in order to determine the original cost for each inventoriable item. The retail method can be used under any of the three cost flow assumptions discussed earlier: FIFO, LIFO, or average cost.
Example:

<table>
<thead>
<tr>
<th></th>
<th>FIFO Cost</th>
<th>Average Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost</td>
<td>Retail</td>
</tr>
<tr>
<td>Beginning inventory</td>
<td>$100,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Net purchases</td>
<td>(a) 500,000</td>
<td>(b) 800,000</td>
</tr>
<tr>
<td>Goods available for sale</td>
<td>600,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Sales at retail</td>
<td></td>
<td>(800,000)</td>
</tr>
<tr>
<td>Ending inventory- retail</td>
<td>2,000,000</td>
<td></td>
</tr>
<tr>
<td>Cost to retail ratio</td>
<td>500,000</td>
<td>600,000</td>
</tr>
<tr>
<td></td>
<td>800,000</td>
<td>=62.5% /o</td>
</tr>
<tr>
<td>Ending inventory- cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200,000 X 62.5%</td>
<td>125,000</td>
<td></td>
</tr>
<tr>
<td>200,000 X 60 %</td>
<td></td>
<td>120,000</td>
</tr>
</tbody>
</table>

Note the following:

1. **FIFO cost method.** The concept of FIFO indicates that the ending inventory is made up of the latest purchases. Therefore, beginning inventory is excluded from the computation of the cost-to-retail ratio, and the computation becomes net purchases divided by their retail value.

2. **Average cost method.** Average cost assumes that ending inventory consists of all goods available for sale. Therefore, the cost-to-retail ratio is computed by dividing the cost of goods available for sale (Beginning inventory + Net purchases) by the retail value of these goods.

3. When there are mark-up and mark-down to the retail prices the accounting treatment will be more complex.

2- **Gross profit method.** The gross profit method is used to estimate ending inventory when a physical count is not possible. It can also be used to evaluate the reasonableness of a given inventory amount. Assume the following data:
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<table>
<thead>
<tr>
<th>Beginning Inventory</th>
<th>$125,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net purchases</td>
<td>450,000</td>
</tr>
<tr>
<td>Sales</td>
<td>600,000</td>
</tr>
<tr>
<td>Estimated gross profit percentage</td>
<td>32%</td>
</tr>
</tbody>
</table>

Ending inventory is estimated as follows:

<table>
<thead>
<tr>
<th>Beginning inventory</th>
<th>$125,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net purchases</td>
<td>450,000</td>
</tr>
<tr>
<td>Cost of goods available for sale</td>
<td>575,000</td>
</tr>
<tr>
<td>Cost of goods sold [ $600,000 -(32%X 600,000)]</td>
<td>408,000</td>
</tr>
<tr>
<td>Ending inventory</td>
<td>167,000</td>
</tr>
</tbody>
</table>

The gross profit method is used for interim reporting estimates, analysis by auditors, and estimates of inventory lost in fires or other catastrophes. It is not acceptable for financial reporting purposes.

IX. LOWER OF COST OR MARKET

To determine the market value, the accountant should follow the following steps:

1 - Calculate the net realizable value (NRV) which is the selling price in the ordinary course of business less reasonably predictable costs of completion and disposal. This is referred to as "Upper limit".

2 - Calculate NRV less an allowance for an approximately normal profit margin. This is referred to as "Lower limit".

3 - Compare the replacement cost with both the upper limit and the lower limit and choose that falls between the other two prices. The one that you choose will be the MARKET PRICE.

4 - After determining the market price, compare it with the cost of the inventory and choose the lower as a conservative value of the inventory.

**Example: assume the following data:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Original cost</th>
<th>Replacement cost</th>
<th>Selling price</th>
<th>Cost complete and sell</th>
<th>to Normal Margin</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>110</td>
<td>140</td>
<td>15</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>90</td>
<td>135</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>150</td>
<td>130</td>
<td>10</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>80</td>
<td>75</td>
<td>5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>60</td>
<td>100</td>
<td>20</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
Required: determine the Lower of Cost or Market for the above.

<table>
<thead>
<tr>
<th>Item</th>
<th>Upper Limit</th>
<th>Lower Limit</th>
<th>Rep. Cost</th>
<th>Market Cost</th>
<th>LC/M</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>150</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**X. How to adjust inventory to the market price:**

1- **Indirect method:**

Assume that the market price of the ending inventory is $72,000 while the cost is $82,000, the following entry might be recorded:

- Dr. Loss due to market decline of inventory 10,000
- Cr. Allowance to reduce inventory to market 10,000

Loss due to market decline of inventory is recorded in the income statement as follows:

**Income Statement**

- Sales Revenue $210,000
- Cost of Goods sold
  - Inventory Jan. 1 $65,000
  - Purchases 125,000
  - Goods available 190,000
  - Inventory Dec.31 (at cost) 82,000
- Cost of Goods sold 108,000
- Gross profit on sales 102,000
- Loss due to market decline of inventory 10,000
- $92,000

2- **Direct method:**

This method requires reducing ending inventory to its market price, and presenting the market price directly in the balance sheet. The loss due to market decline of inventory is charged to cost of goods sold.

**XI PURCHASE COMMITMENTS**

A commitment to acquire goods in the future is not recorded at the time of the agreement, e.g., by debiting an asset and crediting a liability, but ARB 43, Chapter 4, requires the accrual of a loss in the current year's income statement on goods subject to a firm purchase commitment if the market price of these goods declines below the commitment price. Under GAAP, the accounting treatment is to debit a loss account and credit a current liability, e.g., allowance for purchase commitment loss.

- However, the purchase commitment is not impaired, and no loss occurs, if the amounts to be realized from the disposition of the future inventory items are protected by a firm sales contract or if other circumstances reasonably assure against loss.
- If the market price is above the contracted price, NO GAIN should be recorded.
Example:
Assume that on November 1, 2003 MQ Co. signed a noncancelable contract to purchase computers for a stated price of $1,000,000 to be executed on February 1, 2004. The market price of the computers was $700,000 on December 31, 2003. On the execution date, the price was $800,000. Required: prepare journal entries for the above.

On November 1, 2003:
No entry should be recorded.

On December 31, 2003:
Dr. Unrealized holding gain or loss- In St  300,000 
(purchase commitments)  
Cr. Estimated liability on purchase commitments  300,000

On February 1, 2004:
Dr. Estimated liability on purchase commitments 100,000  
Cr. Unrealized holding gain or loss- In-St  100,000  
(purchase commitments)  
Dr. Purchases  800,000  
Dr. Estimated liability on purchase commitments  200,000  
Cr. Cash  1,000,000

Exercises:
The following information was derived from Mam's 2002 accounting records:

Beginning inventory                                    $100,000
Purchases                                                150,000
Fright m                                                  25,000
Transportation to consignees                             10,000
Fright out                                                15,000
Sales commission                                         5,000
Ending inventory: held by Mem                            30,000
 held by consignees                                       10,000

In its 2002 income statement, what will be the cost of goods sold?
A. $285,000       B. $265,000       C. $245,000       D. $305,000

On November 22, 2002, Jem Co. purchased goods costing $25,000. The terms were F.O.B destination. Some of the costs incurred in connection with the sale and delivery of the goods were as follows:

-Packaging for shipment  $10,000
-Shipping                  5,000
-Insurance on the shipment 2,000

These goods were received on December 20, 2002. What will be the cost of these goods in Jem's December 31, 2002 balance sheet?
A. $25,000       B. $35,000       C. 40,000       D. $42,000
The following information was derived from Noll Inc.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise purchased for resale</td>
<td>$300,000</td>
</tr>
<tr>
<td>Freight in</td>
<td>20,000</td>
</tr>
<tr>
<td>Freight out</td>
<td>10,000</td>
</tr>
<tr>
<td>Purchase returns</td>
<td>5,000</td>
</tr>
<tr>
<td>Purchasing commission</td>
<td>4,000</td>
</tr>
</tbody>
</table>

Noll's inventoriable cost was:

A. $329,000  
B. $315,000  
C. $319,000  
D. $320,000

---

**Course Dictionary**

1. **Tangible**
2. **Consumed**
3. **Raw Materials**
4. **Supplies’**
5. **Work in Process**
6. **Finished Goods**
7. **Perpetual System**
8. **Subsidiary ledger**
9. **Periodic System**
10. **Physical count**
11. **Goods in Transit**
12. **Cosigned Goods**
13. **Consignor**
14. **Consignee**
15. **Sales on Installment**
16. **Variable costing**
17. Absorption costing

18. Fixed costs

19. Manipulate

20. FIFO

21. LIFO

22. Physical flow of goods

23. Involuntary

24. Lower of cost or market

25. Income statement

26. Balance sheet

27. Purchase commitment

E8-15 (FIFO and LIFO-Periodic and Perpetual)  Inventory information for Part 311 of Monique Aaron Corp. discloses the following information for the month of June:

June 1 Balance 300 units @ $10  June 10 Sold 200 units @ $24
11 Purchased 800 units @ $12 15 Sold 500 units @ $25
20 Purchased 500 units @ $13 27 Sold 300 units @ $27

Instructions
Compute the cost of goods sold and ending inventory under LIFO and FIFO assuming:
(a) Assuming that the periodic inventory method is used.
(b) Assuming that the perpetual inventory method is used.

E8-16 (FIFO, LIFO and Average Cost determination) : John Adams Company's record of transaction for the month of April was as follows:
Instructions

a- Assuming that perpetual inventory records are kept in units only, compute the inventory at April 30 using (1) LIFO and (2) average cost.

b- Assuming that perpetual inventory records are kept in dollars, determine the inventory using (1) FIFO and (2) LIFO.

c- Compute cost of goods sold assuming periodic inventory procedures and inventory priced at FIFO.

d- In an inflationary period, which inventory method-FIFO, LIFO, average cost-will show the highest net income?

E 8-20- The board of directors of Deion Sanders Corporation is considering whether or not it should instruct the accounting department to shift from a first-in, first-out (FIFO) basis of pricing inventories to a last-in, first-out (LIFO) basis. The following information is available.

Sales 21,000 units $50
Inventory, January 1 6,000 units @ 20
Purchases 6,000 units @ 22
10,000 units @ 25
7,000 units @ 30
Inventory, December 31 8,000 units @ ?
Operating expenses $200,000

Instructions Prepare a condensed income statement for the year on both bases for comparative purposes.
ACCOUNTS RECEIVABLE

Definition:
The term "receivables" refers to amount due from individuals and other companies. Receivables are claims that are expected to be collected in cash, and frequently classified as:

1. **Accounts receivable** are amount owed by customers on account.
2. **Notes receivable** are claims for which formal instruments of credit are issued as proof of the debt.

Notes and accounts receivable that result from sales transactions are often called trade receivables.

3. **Other receivables** include non-trade receivables, such as interest receivable, loan to company officers, advances to employees. They are unusual, therefore they are generally classified and reported as separate items in the balance sheet.

I. ACCOUNTS RECEIVABLE:
The basic issues in accounting for accounts receivable are:

1. **Recognizing accounts receivable**
   Accounts receivable are recognized upon the sale or rendering the service.
   The accountant should consider the availability of discounts (trade and cash discounts) when recognizing accounts receivable:
   
   **A - Trade Discount:**
The normal practice is simply to deduct the trade discount from the list price and bill the customer by the net.

   **B - Cash Discounts (sales discounts):**
   Cash discounts are offered as a motivation for prompt payment.
   They are communicated in terms such as 2/10, n/30 (you will receive 2% cash discount if you pay within 10 days, otherwise, you should pay the remaining amount within 30 days).

2. **Valuing Accounts Receivable**
The possibility that some accounts receivable will be uncollectible posing an argument about the valuing of the accounts receivable.

Uncollectible accounts should be provided for using one of the two following methods:

**A- The allowance method and,**
**B- The direct write-off method.**

**A- Allowance Method For Uncollectible Accounts**
The allowance method of accounting for bad debts involves estimating uncollectible accounts at the end of each period. This provides better matching on the income statement and ensures that receivables are stated at their cash (net) realizable value on the balance sheet. It excludes amounts expected to be uncollectible. Accordingly, Accounts Receivable are reduced by the estimated uncollectible amount in the balance sheet when this method is used.

The allowance method is required for financial reporting purposes when bad debts are material in amount. It has three essential features:

1- Uncollectible accounts receivable are estimated.
2- When the company wants to provide for the expected uncollectible accounts, the journal entry will be:
   
   Dr. Bad debt expense
   Cr. Allowance for doubtful accounts
3- When a specific account is written off, the entry will be:
Dr. Allowance for doubtful accounts
Cr. Accounts receivable
Bad debts expense is reported in the income statement as an operating expense.
Allowance for doubtful accounts is deducted from accounts receivable in the current assets section of the balance sheet as shown below:

CSCCO.

**BALANCE SHEET (PARTIAL)**

<table>
<thead>
<tr>
<th>Current assets</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>140.800</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>2,000.000</td>
</tr>
<tr>
<td>Less Allowance for doubtful accounts</td>
<td>120.000</td>
</tr>
<tr>
<td>Total current assets</td>
<td>2,020,800</td>
</tr>
</tbody>
</table>

**Approaches Used For Allowance Method:**
The process of determining the expected amount of uncollectible accounts uses two approaches:

1- Percentage of receivables "Balance Sheet Approach".

2- Percentage of sales" Income Statement Approach".

**1 - Percentage Of Receivables "Balance Sheet Approach":** Under this approach, management estimates what percentage of receivables will result in losses from uncollectible accounts. An aging schedule is prepared. In this schedule customer balances are classified by the length of time they have been unpaid. Because of its emphasis on time, the analysis is often called aging the accounts receivable.

After the accounts are aged, the expected bad debt losses are determined. This is done by applying percentages based on past experience to the totals in each category. The longer a receivable is past due, the less likely it is to be collected. So, the estimated percentage of uncollectible debts increases as the number of days past due increases. An aging schedule for CSC Co. is shown below:
Accordingly, the 37,121 SYP represents the required balance in allowance for doubtful accounts at the balance sheet date. The amount of the bad debt expense for the current year is the difference between the required balance and the existing balance in the allowance account. If the trial balance shows allowance for Doubtful Accounts with a Credit balance of 24,950 SYP, so the amount of bad debt expense for this year is 12,171 SYP.

The percentage of receivables method will normally result in the better approximation of cash realizable value. But it will not result in the better matching of expenses with revenues if some customers' accounts are more than one year past due. In such a case, bad debts expense for the current period would include amounts of the prior year sales.

**Example**

CSC Co. has determined that the net realizable value of the receivables was 2,500,000 SP. Additional information is available as follows:

- Allowance for uncollectible accounts at 01/01/01: 280,000
- Accounts written off as uncollectible during 2001: 230,000
- Accounts receivable at 31/12/01: 2,700,000

For the year ended December 31, 2001, uncollectible accounts expense would be:

- A-230,000
- B-150,000
- C-200,000
- D-100,000

**2 - Percentage of sales "Income Statement Approach"**: in this approach, management estimates what percentage of credit sales will be uncollectible. This percentage is based on past experience and anticipated credit policy.

The percentage is applied to either total credit sales or net credit sales of the current year. To illustrate assume that MQ Co. elects to use the percentage of sales approach. It finds that 2% of net credit sales will become uncollectible. If net credit sales for 2003 are 1,000,000, the estimated bad debts expense is 20,000 (2% X 1,000,000).
This basis of estimating uncollectibles emphasizes the matching of expenses with revenues. As a result, Bad Debt Expense will show a direct percentage relationship with the sales. If actual write-offs differ significantly from the amount estimated, the percentage for future years should be modified.

**Example:**
The following information pertains to MQ Co.
Credit sales for the year 2002          450,000
Credit balance in allowance for
Uncollectible accounts at January 1,    10,800
Bad debts written off during 2002      18,000

According to past experience, 3% of MQ credit sales have been uncollectible. After provision is made for bad debt expense for the year ended December 31, 2002, the allowance for uncollectible accounts balance would be:

a. 6,300  b. 24,300  
c. 13,500  d. 31,500

**B. Direct Write-Off Method For Uncollectible Accounts**
Under the direct write-off method, when a particular account is determined to be uncollectible, the loss is charged to bad debts expense.

The entry for such transaction is:

<table>
<thead>
<tr>
<th>Date</th>
<th>Account</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 15</td>
<td>Bad debts expense</td>
<td>To write-off X CO. Account</td>
</tr>
</tbody>
</table>

When this method is used, bad debt expense will show only actual losses from uncollectibles. Based on this, bad debt expense is often recorded in a period different from the period in which the revenues were recognized.

Moreover, the direct write-off method does not show accounts receivable in the balance sheet at the amount actually expected to be received (net realizable value).

Accordingly, write-off method is not acceptable under GAAP.

**TIME VALUE OF MONEY**
I. Basic time value concepts: the term - time value of money - is used to indicate a relationship between time and money that a dollar received today is worth more than a dollar promised at some time in the future, because of the opportunity to invest today's dollar and receive interest on the investment.

II. Application of time value concepts:

a. Long term notes payable or receivable.
b. Leases.
c. Bonds.

III. Types of interest:

1- Simple interest, simple interest is computed on the amount of the principal only.

Illustration(1): A borrowed from B $ 1,000 for 3 years with simple interest of 10% to be paid annually.

Equation: \[ \text{Interest} = p \times i \times n \]

p: principal, i: interest rate, n: number of periods
2- Compound interest, interest accrues on the unpaid interest of past periods as well as on the principal.
Illustration (2): A borrowed from B $1,000 for 3 years to be paid back with interest at the end of the third year.

\[
\text{Amount to be paid} = p \times (1 + i)^n
\]

\[
p: \text{principal} \\
i: \text{interest rate} \\
n: \text{period}
\]

\[
3 \\
\text{Future value} = 1,000 \times (1+10\%) = 1,000 \times 1.331 = \$1,331 \\
\text{Interest} = 1,331 - 1,000 = \$331
\]

IV. Compound interest tables
Five different types of compound interest tables are presented as an appendix at the end of this lecture. The titles of these five tables and their contents are:

1) Future value of a single sum (\$1) table: contains the amounts to which \$1 will accumulate if deposited now at a specified rate and left for a specified number of periods (table 6-1).
Illustration (3): A borrowed from the bank \$1,000 for 3 years to be paid back with a compound interest of 10\% at the end of the third year. What amount would A pay the bank at the end of the third year?
Equation: \(FV = 1,000 \times 1.331 = \$1,331\)

2) Present value of a single sum (\$1) table: contains the amounts that must be deposited at a specified rate of interest to equal \$1 at the end of a specified number of periods. (table 6-2).
Illustration (4): What is the current amount that the bank should give to A now in order to be entitled to collect \$1,331 at the end of the third year at a compound interest rate of 10\%.
Equation: \(PV = 1,331 \times 0.75132 = \$1,000\)

3) Future value of an ordinary annuity of (\$1) table: contains the amounts to which periodic payments of \$1 will accumulate if the payments are invested at the end of each period at a specified rate of interest for a specified number of periods. (table 6-3).
Illustration (5): If A has made five equal payments of \$1,000 at the end of each year to the bank at an interest rate of 10\%, how much would A collect at the end of the fifth year?
Equation: \(FV-OA = 1,000 \times 6.105 = \$6,105\)
What would be the result if A has made the payments at the beginning of each year?
Equation: \(FV-AD = \text{Amount} \times \text{FVF-AD}\)
\(FV-AD = 1,000 \times 6.7155 = \$6,716\)

* Future Value Factor of Annuity Due = Future Value Factor of Ordinary Annuity \(X (1+\text{interest rate})\)

4) Present value of an ordinary annuity of (\$1) table: contains the amounts that must be deposited now at a specified rate of interest to permit withdrawals of \$1 at the end of regular periodic intervals for the specified number of periods (table 6-4).
Illustration (6): How much is the amount that A should pay to the bank now to be entitled to receive three annual equal payments of \$1,000 at the end of each year with interest rate of 10\%.
Equation: \(PV-OA = 1,000 \times 2.48685 = \$2,487\)
5) Present value of an annuity due of $1 table, contains the amounts that must be deposited now at a specified rate of interest to permit withdrawals of $1 at the beginning of regular periodic intervals for the specified number of periods (table 6-5).

Illustration (7): What would be the result of the above illustration if the payments were made at the beginning of each year.

Equation: \[ PV-AD = R \times PVF-AD \]

\[ PV-AD = 1,000 \times 2.73554 = \$2,736 \]

II. NOTES RECEIVABLE

Notes receivable give the payee (the person to whom the payment is to be made) a stronger legal claim than accounts receivable. They represent a credit granted in exchange for a promissory note. Notes receivable are classified as interest bearing or non-interest bearing notes.

Interest bearing notes have a stated rate of interest, whereas non-interest bearing notes (zero interest bearing notes) include interest as part of their face amount instead of stating it explicitly. Notes receivable are considered fairly liquid, even if long-term, because they may be easily converted to cash.

Short term notes are generally recorded at face value (less allowances).

Long term notes receivable, should be recorded and reported at the present value of the cash expected to be collected. When the interest stated on an interest bearing note is equal to the effective rate of interest, the cash exchanged will be the same as face value. When the interest stated on an interest bearing note is NOT equal to the effective rate of interest, the cash exchanged is different from the face value of the note. The difference between the face value and the cash exchanged, either a premium or a discount, is then recorded and amortized over the life of the note.

Illustration 1 (note issued at face value):
Assume that A.B.C CO. lends World Corp $1,000,000 in exchange for a $1,000,000, 3 years note bearing interest at 10% annually. The market rate of interest for the note is also 10% (no premium or discount noticed).

The present value or exchange price of the note is computed as follows:

Face value of the note: $1,000,000

Present value of the principal:
\[ (1,000,000 \times 0.75132) = 751,320 \]

Present value of the interest:
\[ (100,000 \times 2.48685) = 248,685 \]

Present value of the note: $1,000,005

Difference (approximately): $0

In this case the present value of the note and its face value are the same, because the effective and stated rates of interest are also the same. The receipt of the note is recorded by A.B.C as follows:

Notes receivable: $1,000,000

Cash: $1,000,000

The interest would be recognized each year as follows:

Cash: $100,000

Interest revenue: $100,000

Illustration 2 (zero interest bearing note):
Assume that A.B.C company receives a 3 year, $1,000,000, zero interest bearing note, the present...
professionally practical training

value of which is 772,180 SP. The implicit rate that equates the total cash to be received to the present value is 9% (the present value of 1 SP for 3 periods at 9% is 0.77218). The entry to record the transaction is as follows:

Notes receivable                              1,000,000
Discount on notes receivable                   227,820
Cash                                                      772,180

The discount on notes receivable is reported on the balance sheet as a contra account to notes receivable. The discount will be amortized and the amortization will be recognized as an interest revenue as follows:

**Schedule of note discount amortization**

<table>
<thead>
<tr>
<th>Date of issue</th>
<th>Interest received</th>
<th>Interest revenue</th>
<th>Discount amortized</th>
<th>Carrying amount of note</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of year 1</td>
<td>0</td>
<td>69,496*</td>
<td>69,496</td>
<td>841,676</td>
</tr>
<tr>
<td>End of year 2</td>
<td>0</td>
<td>75,751</td>
<td>75,751</td>
<td>917,427</td>
</tr>
<tr>
<td>Year 3 Total</td>
<td>0</td>
<td>82,573</td>
<td>82,573</td>
<td>1,000,000</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>227,820</td>
<td>227,820</td>
<td></td>
</tr>
</tbody>
</table>

* 772,180 X 0.09 = 69,496
772,180 + 69,496 = 841,676

Interest revenue at the end of the first year is recorded as follows:

Discount on notes receivable                      69,496
Interest revenue (772,180 X 9%)                     69,496

The amount of the discount 227,820 SP, in this case, represents the interest revenue to be received from the note over the three years.

**Example:**

On January 1, 2001. CSC company receives a 3 year, 600,000 SP zero interest bearing note, the prevailing interest rate for such a note at January 1, 2001 was 10%. The present value of 1 SP at 10% for three periods is 0.75.

In CSC December 31 balance sheet, what amount should be reported as note receivable:

A- 600,000
B- 450,000
C- 495,000
D- 150,000

And what amount should be reported as interest income:

A- 9,000
B- 50,000
C-145,000
D- 60,000

**Illustration 3 (interest bearing note):**

Assume that A.B.C Company receives a 3 year, 1,000,000 SP note bearing interest at 10% annually. The market rate of interest for a note of similar risk is 12%.

The present value of the two cash flows is computed as follows:

Face value of the note                              1,000,000
Present value of the principal                     711,800
Sham International Academy

Professional Practical Training

Present value of the interest

\[(100,000 \times 2.40183) = 240,200\]

Present value of the note 952,000

Difference 48,000

In this case, because the effective rate of interest (12%) is greater than the stated rate (10%), the present value of the note is less than the face value, that is, the note was exchanged at a discount.

The receipt of the note at a discount is recorded by A.B.C is recorded as follows:

Notes receivables 1,000,000
Discount on notes receivable 48,000
Cash 952,000

The discount is then amortized and interest revenue is recognized annually using the effective interest method. The 3-year discount amortization and interest revenue schedule is shown on the next page:

Schedule of note discount amortization

<table>
<thead>
<tr>
<th>Date of issue</th>
<th>Interest received</th>
<th>Interest revenue</th>
<th>Discount amortized</th>
<th>Carrying amount of note</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of year 1</td>
<td>100,000*</td>
<td>114,200*</td>
<td>14,200***</td>
<td>966,200****</td>
</tr>
<tr>
<td>End of year 2</td>
<td>100,000</td>
<td>115,900</td>
<td>15,900</td>
<td>982,100</td>
</tr>
<tr>
<td>End of year 3</td>
<td>100,000</td>
<td>117,900</td>
<td>17,900</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>

Total 300,000 348,000 48,000

* 1,000,000 X 0.1= 100,000
** 952,000 X 0.12 =114,200
*** 114,200-100,000 = 14,200
**** 952,000 +14,200 == 966,200

When the present value exceeds the face value, the note is exchanged at a premium. The premium on a note receivable is recorded as a debit balance and amortized using the effective interest method over the life of the note as annual reductions in the amount of interest revenue recognized.

Course Dictionary

1. Individuals
2. Instruments
3. Trade Discount
4. Cash Discounts
5. posing an argument
6. Uncollectible accounts
7. Allowance for doubtful accounts
8. Bad debt expense
9. Partial
10. aging the accounts receivable
11. Emphasize
12. Modify
13. Provision
CURRENT LIABILITIES
I. DEFINITION OF CURRENT LIABILITIES:
ARE 43 defines a current liability as an obligation that will be either liquidated using current assets or replaced by another current liability. Current liabilities also include:
(1) Obligations that, by their terms, are or will be due on demand within 1 year (or the operating cycle if longer), and
(2) Obligations that are or will be callable by the creditor within 1 year because of a violation of a debt covenant.
All other liabilities are classified as noncurrent.

II. ACCOUNTS PAYABLE:
Accounts payable reflect the obligations to sellers that are incurred when an entity purchases inventory, supplies, or services on credit.
a. Purchases and related accounts payable may be recorded using the gross method or the net method.
1) The gross method records purchases and accounts payable without regard to purchase discounts available, for example, cash discounts for early payment.
a) In a periodic system, purchase discounts taken are credited to a contra purchases account and closed to cost of goods sold. In a perpetual system, they are credited to inventory.
2) The net method records purchases and accounts payable at the cash (discounted) price.
a) The advantage of the net method is that it isolates purchase discounts lost, which are treated as financing charges.
b. The timing of recognition of accounts payable may depend on the shipping terms, FOB Destination or FOB Shipping Point.
c. Checks written before the end of the period, but not mailed to creditors, should not be debited to the accounts payable in the period; the amounts remain current liabilities until control of the checks has been surrendered to the supplier.

III. NOTES PAYABLE
Notes payable are written promises to pay certain sum of money on a specified future date and may arise from purchases, financing, or other transactions.
1. Types of notes payable:
a) Interest bearing note, this note explicitly states an interest rate on the face of it.
Example: assume that MQ Co. wants to borrow $100,000 on February 1, 2003 by signing a $100,000, 12%, 2-years note paying interest semiannually. The entry that record the transaction is:
Cash
   Notes payable
   100,000
   100,000

If MQ Co. prepares financial statements semiannually, the entry on December 31, 2003 will be:

   Interest expense
   Interest payable

The entry on maturity date will be:

   Notes payable
   Interest payable
   Interest expense
   Cash
   2) Zero - Interest bearing note. This note does not explicitly state an interest rate on the face of it, instead, the borrower is required at maturity date to pay back an amount greater than the cash received at the issuance date. In other words, the borrower receives in cash the present value of the note.

Example: assume that MQ Co. issues a $105,000, 2 years, zero-interest-bearing note to the lender. The present value of the note is $100,000. The entry to record this transaction is:

   Cash
   Discount on notes payable
   Notes payable

Note. Discount on notes payable is a contra account to notes payable and therefore is subtracted from notes payable on balance sheet.

2. Classification of notes payable.

Notes payable are classified as current or noncurrent liabilities according to their maturity. Long-term notes, such as mortgage notes, that are payable in installments should be partially classified as a current liability to the extent of any payments due in the coming year. The remaining portion should be classified as noncurrent liability.

Note: Long term debts maturing currently should not be included as current liabilities if they are to be:

1) Refinanced, or retired from the proceeds of a new long term debt issue.
2) Converted into capital stock.

In this case, the plan for liquidation of such a debt should be disclosed either parenthetically or by a note to the financial statements.

III. SHORT-TERM OBLIGATIONS EXPECTED TO BE REFINANCED:

If an enterprise intends to refinance short-term obligations on a long-term basis and demonstrates an ability to consummate the refinancing, the obligation should be excluded from current liabilities and classified as noncurrent.

1) The ability to consummate the refinancing may be demonstrated by:
   i. A post-balance-sheet-date issuance of a long-term obligation or equity securities, or
   ii. Entering into a financing agreement that meets the following criteria:
      a) The agreement does not expire within the longer of
1 year or the operating cycle.
b) It is noncancelable by the lender.
c) No violation of the agreement exists at the balance sheet date.
d) The lender is financially capable of honoring the agreement.
The amount of the short-term liability that is reclassified as a long-term liability should not exceed the amount available for refinancing.

Example:
On December 31, 2002 MQ Co. had a 1,000,000 note payable outstanding, 'due June 30, 2003. MQ planned to refinance the note by issuing long term bonds. Because MQ temporarily had excess cash, it prepaid $ 300,000 of the note on February 3, 2003. In March 25, 2003, MQ completed the issuance of $ 2,000,000 bonds. MQ will use the bonds issue proceeds to repay the note payable and to expand its factory. On April 20, 2003, MQ issued its 2002 financial statements.
What amount of the note payable should be included in the noncurrent liabilities section of MQ's December 31, 2002 balance sheet?

a. 1000,000        b. 300,000

c. 700,000        d. 0

IV. PAYROLL TAX AND SOCIAL SECURITY TAXES:
Payroll tax and social security taxes are expenses incurred as employees earn wages, but they are paid only on a periodic basis to the federal government. Accordingly, liabilities should be accrued for both expenses, as well as for wages earned but not paid.
Income taxes withheld and the employee's share of social security taxes are accrued as withholding taxes (employee payroll deductions) and not as employer payroll taxes.
Example: assume that the payroll expense for the month is $ 1,000 and the payroll tax is 20% while the employee share of social security tax is 7% and the employer's is 14%.
Required: record the entry to accrue the payroll and taxes payable.

V. RETURNABLE DEPOSITS:
Current liabilities of a company may include returnable cash deposits received from clients and employees.
The classification of these deposits as current or noncurrent liabilities is dependent on the time between the date of the deposit and the termination of the relationship that required the deposit.

VI. COUPONS AND PREMIUMS
Many companies offer premiums ( cash or goods ) to customers in return for boxtops, stamps, coupons, special labels, etc., in order to increase their sales.
In accordance with the principle of associating cause and effect (matching principle), the expense involved in making premium offers should be recognized in the same period as the related revenue.
Moreover, the premiums must be purchased and recorded as inventory, the expense of redemptions must be debited, and a liability for estimated redemptions must be credited at the end of the accounting period.
Example:
Assume that MQ Co. offered its customers a small toy in exchange for 25 cents and 10 boxtops. The toy costs MQ 75 cents, and the Company purchased 20,000 toys to facilitate this offer. Assume also that the company estimates that 60% of the boxtops will be redeemed. The company sold 300,000 boxes and redeemed 60,000 boxtops during 2003. The entry to record the purchase of the toys
would be:
Dr.
Cr.
The entry to record the redemption of the 60,000 boxtops would be:
Dr.
Dr.
Cr.
The entry to record the estimated liability for outstanding premiums at December 31, 2003 would be:
Dr.
Cr.

VII. GUARANTEE AND WARRANTY COSTS:
A warranty is a written guarantee made by a seller to a buyer to repair or replace a product, refund all or part of the price, or provide additional service upon the deficiency of quantity, quality, or performance.
Warranties and guarantees entail future costs which are sometimes called "after costs" or "post-sale costs". There are two basic methods of accounting for warranties costs:
1) Cash basis: under this method, warranty costs are charged to expense as they are incurred. No liability is recorded for future costs arising from warranties. The cash basis method is required when a warranty liability is not accrued in the year of sale either because:
a. It is not probable that a liability has been incurred.
b. The amount of the liability can not be reasonably estimated.
2) Accrual basis: if incurrence of warranty expense is probable, the amount can be reasonably estimated, and if the amount is material accrual accounting methods should be used. Accrual basis method contains two approaches:
a. Expense warranty approach: Under the expense warranty approach, the total estimated warranty cost is debited to operating expense and credited to a liability in the year of sale. This method is generally accepted when the warranty is not separable and is treated as a loss contingency.
b. Sales warranty approach: this approach is appropriate when the warranty and the product are separate, for example, when an extended warranty is sold in addition to the regular warranty. Under this method, the warranty revenue is deferred and amortized over the term of the contract, usually on the straight-line basis. Any costs directly related to the contract, such as commissions, are also deferred and amortized.

Example:
CSC Corp. sells TV sets that carry a 2 years warranty against defects. Based on past experience, warranty costs are estimated at 4% of sales for the warranty period. During 2003, sales of TV sets totaled $6,000,000 and warranty costs of $135,000 were incurred. In its income statement for the year ended 31-12-2003, CSC should report warranty expense of:
a.$105,000          b. 120,000
c.$135,000          d. 240,000
Example:
CSC Co. sells TV service contracts that cover a two year period. CSC receives $300 for each contract. CSC past experience is that 40% of the costs of repair are incurred evenly during the first contract year and 60% evenly during the second, contract year. CSC sold 1,000 contracts during 2002. What amount should CSC report as deferred revenue in its December 31, 2002, balance sheet?

a. 270,000  b. 180,000  c. 240,000  d. 150,000

IX. CONTINGENT LIABILITIES AND COMMITMENTS

Definition: "an existing condition, situation, or set of circumstances involving uncertainty as to possible gain (hereinafter a gain contingency) or loss (hereinafter a loss contingency) to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur"

1. Loss contingencies:
Loss contingencies are situations involving uncertainty as to possible loss in the future. When a loss contingency exists, the likelihood that the future event will confirm the incurrence of the loss can range from probable to reasonably possible and finally to remote. An estimated contingent loss should be accrued (debit loss, credit liability or asset valuation allowance) when, based on information available prior to the issuance of the financial statements, two conditions are met:
(1) It is probable that at the balance sheet date an asset has been impaired or a liability has been incurred, and
(2) the amount of the loss can be reasonably estimated.
If the company is unable to determine a stated amount of the loss but instead the loss was stated within a given range, and no amount within that range appears to be a better estimate than any other, the minimum of the range should be accrued.
If both conditions are not met, but the probability of the loss is at least reasonably possible, an estimate of the loss or the range of loss must be disclosed or a statement should be included indicating that an estimate cannot be made.
Usually, loss contingencies are not disclosed if the probability of occurrence is remote.
Finally, below is a list of examples of loss contingencies and the general accounting treatment accorded them:

| Loss related to:                                      | Usually accrued | Not accrued | May be accrued *
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Collectibility of receivables</td>
<td></td>
<td></td>
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<tr>
<td>Obligations related to product warranties or defects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premiums offered to customers</td>
<td></td>
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<tr>
<td>Risk of loss from catastrophes</td>
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<td></td>
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<tr>
<td>General or unspecified business risk</td>
<td></td>
<td></td>
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<tr>
<td>Threat of expropriation of assets</td>
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<tr>
<td>Pending or threatened litigation</td>
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</tr>
<tr>
<td>Actual or possible claims and assessments **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guarantees of indebtedness of others</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Agreements to repurchase receivables (or the related property) that have been sold.

* Should be accrued when both criteria are met (probable and reasonably estimable).

** Estimated amounts of losses incurred prior to the balance sheet date but settled subsequently should be accrued as of the balance sheet date.

2. Gain contingencies
Gain contingencies are claims or rights to receive assets (or have a liability reduced) whose existence is uncertain but which may become valid eventually. Gain contingencies should not be recognized until they are realized. For example, an award of damages in a lawsuit is not deemed to be realized if it is being appealed.

A gain contingency should be disclosed only when the probabilities are high that a gain contingency will become a reality.

Course Dictionary

1. Obligation
2. Operating cycle
3. Violation
4. Covenant
5. Isolate
6. Surrender
7. Interest bearing notes
8. Semiannually
9. Discount
10. Refinance
11. Mature
12. Convert
13. Noncancelable
14. Capable
15. Withholding taxes
16. Social security taxes
17. Returnable deposits
18. Guarantee and warranty costs
19. Performance
20. Unearned "deferred" revenue
21. Contingent liability
22. Probable
23. Possible
24. Remote
I- ACCOUNTING FOR THE ISSUANCE OF STOCK

A- Accounting for Par Value Stock

To show the required information for issuance of par value stock, accounts must be kept for each class of stock as follows:

1. Preferred stock or Common Stock — reflects par value of the corporation "s issued shares. These accounts are credited when the shares are originally issued.
2. Paid-in Capital in Excess of Par or Additional Paid-in Capital - indicates any excess over par value paid in by stockholders in return for the shares issued to them.
3. Discount on stock — indicates that the stock has been issued at less than par. It is not commonly applicable.

Illustration:

Assume that KFC corporation sold for $2,500 two hundred shares of stocks with par value of $10 per share. The entry to record the issuance is as following:

Cash $2,500
Common stock (at par) $2,000
Additional-paid in capital $500

(To record the issuance of 200 shares par value of $10)

If the stocks have been issued in return of $1,500 the journal entries would be:

Cash $1,500
Additional-paid in capital $500
Common stock (at par) $2,000

(To record the issuance of 200 shares par value of $10)

B- No-Par Stock

No-par stock is shares issued with no per-share amount printed on the stock certificate. The reasons for issuance of this stock is to eliminate the confusion that may exist over the relationship between the par value and fair market value. True no-par stock should be carried in the accounts at issue price without any complications due to additional paid-in capital or discount. Accordingly, the exact amount received represents credit to common or preferred stock. However, some states permit such stock to have a stated value after their issuance.

Illustration:

K.Mart corporation is organized with authorized common stock of 20,000 shares with no par value. No entry is made other than memorandum entry, as no amount is involved. If 1,000 shares are then issued for cash at $10 per share, the entry should be:

Cash $10,000
Common stock-no par value $10,000

If another 1,000 shares are issued for $11 per share, the entry should be:

Cash $11,000
Common stock-no par value $11,000

C- Stock Sold On a Subscription Basis

Sale of subscribed stock generally occurs when new, small companies "go public" or when corporations offer stock to employees to obtain employee participation in the ownership of the business.

a) Accounting/or Subscribed Stock — two new accounts are used:

(1) Common or Preferred Stock Subscribed: indicates the corporation's obligation to issue shares of its stock upon payment of final subscription balances by those who have subscribed for stock; it is
(2) Subscriptions Receivable, indicates the amount yet to be collected before the issuance of the subscribed stock. It is presented as a deduction from stockholders' equity as a contra equity account.

Illustration:
H&R BLUK corporation offers stock on a subscription basis, to selected individuals, giving them the right to purchase 10 shares of stock (par value $5) at a price of $20 per share. Fifty individuals accept the company's offer and agree to pay 50% down payment and to pay the remaining 50% at the end of 6 months:

**At the date of issuance the entry is:**

Subscriptions receivable \((10 \times $20 \times 50)\) \(\$10,000\)

Common stock- Subscribed \((10 \times $5 \times 50)\) \(\$2,500\)

Additional-paid in capital \(\$7,500\)

(To record the receipt of subscriptions for 500 shares)

When the first installment is received the entry is:

Cash \(\$5,000\)

Subscriptions receivable \(\$5,000\)

(To record the receipt of first installment representing 50% of total due on the subscribed stock)

When the final payment is received and the stocks are issued, then the JEs are:

Cash \(\$5,000\)

Subscriptions receivable \(\$5,000\)

(To record the receipt of final installment on subscribed stock)

Common stock- Subscribed \((10 \times $5 \times 50)\) \(\$2,500\)

Common stock \(\$2,500\)

(To record the issuance of 500 shares upon the receipt of the final installment from subscription)

**b) Defaulted subscription Accounts**

When the subscribers default, the corporation reverse the applicable portion of the original entry and either:

- Issue stock in proportion to the amount paid, or
- Refund the partial payment, or
- Retain the partial payment by a credit to additional paid in capita!

D- Stock Issued In Combination With Other Securities (Lump Sum Sales) Occasionally, two or more classes of securities are issued for a single payment or lump sum. The accounting problem is the allocation of the proceeds among several classes of securities. The two methods available:

1. **Proportional Method**—if the fair market value or other sound basis for determining relative value is available for each class of security, the lump sum received is allocated among the classes of securities on a proportional basis

   Example: if 1,000 shares of $10 stated value common stock with a market value of $20 a share and 1,000 shares of $11 par value preferred stock with a market value of $12 a share are issued for a lump sum amount of $30,000, the allocation of the $30,000 to the two classes would be as below:

2. **Incremental Method** - in instances where the fair market value of all classes of securities is not determinable, the incremental method may be used. The market value of the securities is used as a basis for those classes that are known and the remainder of the lump sum is allocated to the class for which the market value is not known - If no fair market value is determinable for any of the classes
of stock involved in a lump sum exchange, the allocation may have to be arbitrary. Example: if 1,000 shares of $10 stated value common stock with a market value of $20, and 1,000 shares of $11 par value preferred stock with no market value are issued for a lump sum amount of $30,000, the allocation of the $30,000 to the two classes would be as below.

**E- Stocks Issued In Noncash Transactions**
The general rule is that the property or services be recorded at either the fair market value of the stock issued or the fair market value of the noncash consideration received, whichever is more dearly determinable. Unissued stock or treasury stock may be exchanged for property or services. If treasury shares are used, their cost should not be regarded as the decisive factor in establishing the fair market value of the property or services. Instead, the fair market value of the treasury stock, if known, should be used to value the property or services.

**Illustration:**
711 corporation has issued 10,000 shares of $10 par value common stock for a patent, in various circumstances:
1. The fair market value of the patent is not readily determinable, but the fair market value of the stock is known to be $140,000. The entry is:
   - Patent $
   - Common stock (10,000 shares * $10 per share) $100,000
   - Additional-paid in capital $40,000
2. The fair market value of the stock is not readily determinable, but the fair market value of the patent is determined to be $150,000. The entry is:
   - Patent $
   - Common stock (10,000 shares * $10 per share) $150,000
   - Additional-paid in capital $
3. Neither the fair market value of the stock nor the fair market value of the patent is readily determinable- An independent consultant values patent at $125,000. and the directors agree with that valuation, the entry is:
   - Patent $
   - Common stock (10,000 Ss * $10 per share) $125,000
   - Additional-paid in capital $

**II- REACQUISITION OF SHARES**
Leveraged buyout (LBO) is the purchase of all a corporation's outstanding stock in order to privatize- Once shares are reacquired, they may either be retired or held in the treasury for reissue. If not retired, such shares are referred to as treasury shares or treasury stock. Treasury stock is not an asset and has no more share rights.

**III- Methods of Accounting For Treasury Stock:**
There are two general methods of handling treasury stock in the accounts, however, no matter which method is used, the cost of the treasury shares acquired is considered a restriction on retained earnings in most states:

1) **Cost Method:**
Results in debiting Treasury Stock account for the reacquisition cost and in reporting this account as a deduction from the total paid-in capital and retained earnings on the balance sheet- Treasury stock is credited upon reissuance for this same cost in a manner similar to that used in an inventory account- If several purchases and reissuances occur, an inventory costing method is usually applied-
Under this method, the price received for the stock when originally issued does not affect the entries to record the acquisition and reissuance of the treasury stock. Any excess is credited to an account titled Paid-in Capital from Treasury Stock. Any deficiency is taken first from Paid-in Capital from Treasury Stock and then from retained earnings if the paid-in capital account is insufficient.

The following entries illustrate the situation:

1. If 1,000 shares of common stock of $100 par value are originally issued at $110.
   - Cash
   - Common stock
   - Paid in capital in excess of par

2. If 100 shares of common stock are reacquired at $112.
   - Treasury stock
   - Cash

3. If 10 shares of treasury stock are reissued at $112.
   - Cash
   - Treasury stock

4. If 10 shares of treasury stock are reissued at $130.
   - Cash
   - Treasury stock (10 Ss @ $112)
   - Paid-in Capital from Treasury Stock

5. If 10 shares of treasury stock are reissued at $98.
   - Cash
   - Paid-in Capital from Treasury Stock
   - Treasury stock (10 Ss @ $112)

6. If 10 shares of treasury stock are reissued at $105.
   - Cash
   - Paid-in Capital from Treasury Stock
   - Retained earnings
   - Treasury stock (10 Ss @ $112)

The cost method avoids identifying and accounting for the premiums, discounts, and other amounts related to the original issue of the specific shares acquired.

Notes:
1. When the credit balance of Paid in Capital is eliminated, any additional excess of cost over selling price is debited to Retained Earnings.
2. The original issue price (par value & additional paid in capital) does not enter into the accounting of the treasury stock.
3. No income statement gain or loss is recognized under any case.

2) Par or Stated Value Method:
Records all transactions in treasury shares at their par value and reports the treasury stock as a deduction from capital stock only. The acquisition cost of treasury shares is compared with the amount received at the time of their original issue. Any excess of the acquisition cost over the original issue price is charged to Retained Earnings. If, however, the original issue price exceeds the acquisition price of the treasury stock, this difference is credited to Paid-in Capital from Treasury Stock.
The par value method, however, maintains the integrity of the sources of the various components of capital. The following entries illustrate the situation:

1. If 1,000 shares of common stock of $100 par value are originally issued at $110.
   - Cash
   - Common stock
   - Paid in capital in excess of par

2. If 100 shares of common stock are reacquired at $112.
   - Treasury stock (100 Ss @ $100 par)
   - Paid in capital in excess of par
   - Retained earnings
     - Cash

3. If 100 shares of common stock are reacquired at $98.
   - Treasury stock (100 Ss @ $100 par)
   - Paid in capital in excess of par (100 @ $10)
   - Cash
   - Paid in capital from treasury stock

4. If 100 shares of common stock are reacquired at $105.
   - Treasury stock (100 Ss @ $100 par)
   - Paid in capital in excess of par (100 @ $10)
   - Cash
   - Paid in capital from treasury stock

5. If 100 shares of treasury stock are reissued at $115.
   - Cash
   - Treasury stock
   - Paid in capital in excess of par

6. If 100 shares of treasury stock are reissued at $104.
   - Cash
   - Treasury stock (100 Ss @ $100)
   - Paid in capital in excess of par

7. If 100 shares of treasury stock are reissued at $94.
   - Cash
   - Paid-in Capital from Treasury Stock

\[\text{Treasury stock (10 Ss @ $100)}\]

**Notes:**

1. When the treasury stock is reissued, the accounting treatment is similar to that applied upon the issuance of the stock.

2. Any balance of Paid-in Capital from Treasury Stock would be reduced by any reissuances of treasury stock at less than par value, when that balance is exhausted. Retained earnings would be debited.
VII - Retirement of Treasury Stock:
Retired treasury shares have the status of authorized and unissued shares. The accounting treatment for retired treasury stock depends on whether the cost or the par value method was used to record the acquisition. To illustrate, assume the previous data, and retire the treasury stocks.

<table>
<thead>
<tr>
<th></th>
<th>Cost Method</th>
<th>Par value Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the treasury shares were acquired at $112</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common stock</td>
<td>1,000</td>
<td>Common stock</td>
</tr>
<tr>
<td>Paid in capital in excess of par</td>
<td>100</td>
<td>Treasury stock</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Treasury stock</td>
<td>1,120</td>
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</tr>
<tr>
<td>If the treasury shares were acquired at $98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common stock</td>
<td>1,000</td>
<td>Common stock</td>
</tr>
<tr>
<td>Paid in capital in excess of par</td>
<td>100</td>
<td>Treasury stock</td>
</tr>
<tr>
<td>Paid in capital from retirement</td>
<td>120</td>
<td></td>
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<tr>
<td>Treasury stock</td>
<td>980</td>
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</tr>
</tbody>
</table>

VIII - Presentation of Stockholders equity

Al Sham Corporation
Balance Sheet (partial)

Stockholders' equity
Paid-in capital
Capital stock
9% preferred stock, $100 par value, callable at $120, cumulative, 10,000 shares authorized, 6,000 shares issued and outstanding $600,000
Common stock, no par, $5 stated value, 500,000 shares authorized, 400,000 shares issued and 390,000 shares outstanding 2,000,000
Total capital stock Additional paid in capital 2,600,000
In excess of par value—preferred stock $30,000
In excess of stated value - common stock 860,000
From treasury stock 140,000
Total additional paid - in capital 1,030,000
Total paid - in capital 3,630,000
Retained earnings 1,058,000
Total paid in capital and retained earnings 4,688,000
Less: treasury stock-common (10,000 shares) (at cost) 80,000
Total stockholders equity $4,608,000
<table>
<thead>
<tr>
<th>No.</th>
<th>English Term</th>
<th>Arabic Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Stockholders' equity</td>
<td>حقوق حملة الأسهم</td>
</tr>
<tr>
<td>2.</td>
<td>Dividends</td>
<td>توزيعات الأرباح</td>
</tr>
<tr>
<td>3.</td>
<td>Stock dividends</td>
<td>توزيعات أرباح على شكل أسهم</td>
</tr>
<tr>
<td>4.</td>
<td>Certificate</td>
<td>شهادة</td>
</tr>
<tr>
<td>5.</td>
<td>Involuntary dissolution</td>
<td>تصفية (غير إرادة) إجبارية</td>
</tr>
<tr>
<td>6.</td>
<td>Preferences</td>
<td>الأفضلية - تفضيل</td>
</tr>
<tr>
<td>7.</td>
<td>Authorize</td>
<td>يبرخس - يجوز</td>
</tr>
<tr>
<td>8.</td>
<td>Rights and privileges</td>
<td>الحقوق والامتيازات</td>
</tr>
<tr>
<td>9.</td>
<td>Obligation</td>
<td>النزام</td>
</tr>
<tr>
<td>10.</td>
<td>Subscription</td>
<td>اكتتاب</td>
</tr>
<tr>
<td>11.</td>
<td>Subscribed stock</td>
<td>أسهم مكتتب به</td>
</tr>
<tr>
<td>12.</td>
<td>Contra account</td>
<td>حساب مقابل</td>
</tr>
<tr>
<td>13.</td>
<td>Outstanding shares</td>
<td>أسهم مصدرا وملوكا من الحملة</td>
</tr>
<tr>
<td>14.</td>
<td>Security</td>
<td>ورقة مالية</td>
</tr>
<tr>
<td>15.</td>
<td>Treasury stock</td>
<td>أسهم الخزينة</td>
</tr>
<tr>
<td>16.</td>
<td>Decisive</td>
<td>حاسم - قاطع</td>
</tr>
<tr>
<td>17.</td>
<td>Overvaluation</td>
<td>مقيماة بأكثر من قيمتها</td>
</tr>
<tr>
<td>18.</td>
<td>Inflation</td>
<td>التضخم الاقتصادي</td>
</tr>
<tr>
<td>19.</td>
<td>Attorney</td>
<td>محامي</td>
</tr>
<tr>
<td>20.</td>
<td>Underwritier</td>
<td>الضامن</td>
</tr>
<tr>
<td>21.</td>
<td>Features</td>
<td>خصائص</td>
</tr>
<tr>
<td>22.</td>
<td>Cumulative</td>
<td>متركمة - مجمعة</td>
</tr>
<tr>
<td>23.</td>
<td>Arrears</td>
<td>متاخرات</td>
</tr>
<tr>
<td>24.</td>
<td>Redeem</td>
<td>يستهلك – يتخلص من الالتزام</td>
</tr>
<tr>
<td>25.</td>
<td>Cumulative</td>
<td>أسهم ممتزجة مجمعة لأرباح</td>
</tr>
<tr>
<td>26.</td>
<td>Participating</td>
<td>أسهم ممتزجة مشتركة بالأرباح</td>
</tr>
<tr>
<td>27.</td>
<td>Convertible</td>
<td>أسهم ممتزجة قابلة للتحويل لأسهم عادية</td>
</tr>
<tr>
<td>28.</td>
<td>Callable</td>
<td>أسهم عادية</td>
</tr>
<tr>
<td>29.</td>
<td>Common stock</td>
<td>أسهم عادية</td>
</tr>
<tr>
<td>30.</td>
<td>Preferred stock</td>
<td>أسهم ممتزجة</td>
</tr>
<tr>
<td>31.</td>
<td>Charter</td>
<td>عقد</td>
</tr>
<tr>
<td>32.</td>
<td>Bylaw</td>
<td>النظام الاساسي للشركة</td>
</tr>
</tbody>
</table>
Exercises:

P15-1 (Subscriptions, Treasury Stock, and Lump Sum Issuances)
The Nells Company had the following stockholders' equity on January 1, 2002.

<table>
<thead>
<tr>
<th>Stockholders' Equity</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred stock, $100 par value, 8% cumulative, 10,000</td>
<td></td>
</tr>
<tr>
<td>shares authorized, no shares issued</td>
<td>10,000</td>
</tr>
<tr>
<td>Common stock, 200,000 shares authorized, 100,000 shares issued and outstanding, $2 par</td>
<td>200,000</td>
</tr>
<tr>
<td>Paid-in capital in excess of par (original issue)</td>
<td>2,300,000</td>
</tr>
<tr>
<td>Retained earnings, unappropriated</td>
<td>1,800,000</td>
</tr>
<tr>
<td>Total stockholders' equity</td>
<td>$4,300,000</td>
</tr>
</tbody>
</table>

The following transactions occurred, in the order given, during 2002:
1. Subscriptions were sold for 10,000 shares of common stock at $28 per share. The first payment was for $13 per share.
2. The second payment was for $15 per share. All payments were received on the second payment except for 1,000 shares.
3. Per the subscription contract, which requires that defaulting subscribers have all their payments refunded, Nells sends a refund check to the defaulting subscribers. At this point, common stock is issued to subscribers that have fully paid on the contract.
4. 10,000 shares of treasury stock were purchased at $20 per share. Nells uses the cost method of accounting for treasury shares.
5. All 10,000 shares of treasury stock were sold for $24 per share.
6. 2,000 shares of preferred stock and 3,000 shares of common stock were sold together for $290,000. The common stock had a market value of $27 per share. Instructions

Prepare the journal entries to record the transactions for Nells Company for 2002. PI 5-2 (Treasury Stock Transactions and Presentation)

Jodz Company had the following stockholders' equity as of January 1, 2002.

<table>
<thead>
<tr>
<th>Stockholders' Equity</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock, $5 par value, 20,000 shares issued</td>
<td>$100,000</td>
</tr>
<tr>
<td>Paid-in capital in excess of par</td>
<td>300,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>320,000</td>
</tr>
<tr>
<td>Total stockholders' equity</td>
<td>$720,000</td>
</tr>
</tbody>
</table>

During 2002, the following transactions occurred:

- Feb. 1 Jodz repurchased 2,000 shares of treasury stock at a price of $18 per share.
- Mar. 1 800 shares of treasury stock repurchased above were reissued at $17 per share.
- Mar. 18 500 shares of treasury stock repurchased above were reissued at $14 per share.
- Apr. 22 600 shares of treasury stock repurchased above were reissued at $20 per share.

Instructions
(a) Prepare the journal entries to record the treasury stock transactions in 2002, assuming Jodz uses the cost method.
(b) Prepare the stockholders' equity section as of April 30, 2002. Net income for the first 4 months of 2002 was $110,000.
CASH AND CASH EQUIVALENTS

I. Cash importance and characteristics
Cash is the beginning of a company's operating cycle, it's the main factor in determining a company's ability to meet its obligations and duties. The company's ability to generate cash inflows has a major role in establishing the financial society's (investors banks, suppliers, stock markets, etc) trust in that company. Cash is an asset that is readily convertible into any other type of asset; it considered basic measure for the other assets' value in a company. Cash is the basis of accounting for all other items, also Cash is easily concealed and transported, and its highly desired.

II. Petty cash fund
Better internal control over cash disbursements is possible when payments are made by checks. However, using checks to pay small amounts is both impractical and a nuisance. For instance, a company would not want to write checks to pay postage due, employee lunches, or taxi fares. A common way of handling such payments, while maintaining satisfactory controls, is to use a petty cash fund. Petty cash fund is a cash fund used to pay relatively small amounts but still maintain satisfactory control. The operation of a petty cash fund, often called an imprest system, involves three steps:

1. Establishing the fund
Two essential steps in establishing a petty cash fund are
A- appointing a petty cash custodian who will be responsible for the fund,
B- determining the size of the fund.
Ordinarily, the amount of the fund is expected to cover anticipated disbursement for a 3 to 4 weeks.
To establish the fund, check payable to the petty cash custodian is issued for the stipulated amount. The custodian cashes the check and places the proceeds in a locked petty cash box or drawer. Most petty cash fund are established on a fixed-amount basis.

2. Making payments from the fund
The custodian of the petty cash fund has the authority to make payments from fund that conform to prescribed management policies. Each payment from the fund must be documented on a pre-numbered petty cash receipt or petty cash voucher. No accounting entry is made to record a payment at the time it is made from petty cash. Instead, the accounting effects of each payment are recognized when the fund is replenished.

3. Replenishing the fund
When the money in the petty cash fund reaches a minimum level, the fund is replenished. The petty cash custodian initiates a request for reimbursement. He should prepares a schedule of the payments that have been made and send it, supported by petty cash receipts and other documentation to the
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treasurer's office. The receipts and supporting documents are examined in the treasurer's office to verify that they were proper payments from the fund. The treasurer then approves the request and a check is prepared to restore the fund to its established amount. At the same time all supporting documentation is stamped paid so that it cannot be submitted again for payment.

A petty cash fund should be replenished at the end of the accounting period regardless of the cash in the fund. Replenishment at this time is necessary in order to recognize the effects of the petty cash payments on the financial statements.

III. Use of a bank

The use of a bank contributes significantly to good internal control over cash. A company can safeguard its cash by using a bank as a depository and as a clearing house for checks written and checks received.

IV. Reconciling the bank account

Reconciling the bank account is the process by which the depositor makes the bank balance per books agree with the balance per bank statement. It is known that any lack of agreement between the two balances can be attributed to

* Time lags: that prevent one of the parties from recording the transaction in the same period.
* Errors: by either party in recording transactions.

Reconciling procedures

To obtain maximum benefit from a bank reconciliation, the reconciliation should be prepared by an employee who has no other responsibilities pertaining to cash.

In reconciling the bank account, it is customary to reconcile the balance per books and balance per bank to their adjusted (correct) balances. The four points listed below reveal all the reconciling items that cause the difference between the two balances.

1. Deposits in transit: deposits recorded by the depositor that have not been recorded by the bank. They are added to the balance per bank.
2. Outstanding checks: issued checks that were recorded by the company and have not been paid by the bank. They are deducted from the balance per bank.
3. Errors: all errors made by depositor are reconciling items in determining the adjusted cash balance per books. In contrast, all errors made by the bank are reconciling items in determining the adjusted cash balance per the bank.
4. Bank memoranda: any unrecorded memoranda should be listed in the appropriate section of the reconciliation schedule.
Example:
MQ Company's bank statement for December 2002 shows the following data:

Balance 12/31 $ 14,280
Debit memorandum:
NSF check $ 175
Credit memorandum:
Collection of note receivable: $ 505

The cash balance per books at December 31, 2002 was $ 13,319.

Your review of the data reveals the following:
1. The NSF check was from MK CO, a customer.
2. The note collected by the bank was a $ 500, 3-month, 12% note. The bank charged a $10 collection fee. No interest has been accrued.
3. outstanding checks at December 31 total $ 2,410.
4. Deposits in transit at December 31 total $ 1,752.
5. A HEH Company check for $ 352 dated December 20 cleared the bank on December 28. this check, which a was payment on account, was journalized for $ 325.

Required:
Prepare a bank reconciliation at December 31, 2002.

<table>
<thead>
<tr>
<th>MQ Company Bank Reconciliation  December 31, 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash balance per bank statement</strong></td>
</tr>
<tr>
<td>Add:</td>
</tr>
<tr>
<td>Deposits in transit</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td>Less:</td>
</tr>
<tr>
<td>Outstanding checks</td>
</tr>
<tr>
<td><strong>Adjusted cash balance per bank</strong></td>
</tr>
<tr>
<td><strong>Cash balance per books</strong></td>
</tr>
<tr>
<td>Add:</td>
</tr>
<tr>
<td>Collection of note receivable $500, plus $15 interest, less collection fee $10</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
</tr>
<tr>
<td>Less:</td>
</tr>
<tr>
<td>NSF check</td>
</tr>
<tr>
<td>Error in recording check</td>
</tr>
<tr>
<td><strong>Adjusted cash balance per books</strong></td>
</tr>
</tbody>
</table>
II. Reporting cash in the financial statements

Many companies present their cash under "cash and cash equivalents" title.

A. Cash and cash equivalents:

This term (title) usually includes:

1. Cash on hand: usually represents petty cash fund.
2. Cash in Banks: represents cash deposited in the banks.

There should NOT be any restriction on the use of this cash.

3. Cash equivalents: are short term, highly liquidated investments that are both:
   a- Reabily convertible to known amounts of cash, and
   b- Their maturity date is so near, usually not more than three months when purchased.

Examples of cash equivalents are bank certificates of deposits and U.S. Treasury bills and notes.

B. Cash that can not be reported among "Cash and cash equivalents".

1. Restricted cash

Some times a company may set aside a portion of its cash for particular purpose. In such a case, this portion should be segregated from regular cash for reporting purposes.

This restricted cash is classified either in the current assets or in the long-term assets section, depending on when the cash is expected to be used.

Examples are: payroll bank account and plant expansion cash fund.

2. Compensating balances

Compensating balances are minimum cash balances that banks require borrowers to maintain when lending them some money.

They are a restriction on the use of cash that may affect a company's liquidity. Thus, compensating balances should be disclosed in the financial statements.

The SEC recommends that legally restricted deposits held as compensating balances against short-term borrowing should be stated separately among the cash and cash equivalent items in current assets. Restricted deposits held as compensating balances against long-term borrowing arrangements should be separately classified as non-current assets in the other assets section, using a caption such as 'cash on deposit maintained as compensating balances'.

STATEMENT OF CASH FLOWS

I. Definition

Statement of cash flows is a statement that reports cash receipts, cash payments, and net changes in cash resulting from operating, investing, and financing activities of an enterprise during a period in a format that reconciles the beginning and ending cash balances.
II. Preparing the statement of cash flows:
* The accrual concept is not used in the preparation of a statement of cash flows.
* The information needed to prepare this statement usually comes from three resources:
  1. Comparative balance sheet
  2. Current income statement
  3. Additional information.

III. Components of the statement of cash flows:
1. Operating activities: involve the cash effects of the transactions that enter into the determination of net income such as cash receipts from sales of goods and services and cash payments for purchases of goods or salaries and other expenses.
2. Investing activities: involve long term assets and include:
   a. Making and collecting loans.
   b. Acquiring and disposing of investments and productive long term assets.
3. Financing activities: involve long term liabilities and equity items and include:
   a. Obtaining long term debts and repaying the amounts borrowed.
   b. Obtaining capital from owners and making dividends or returning their investment.

IV. Methods of preparing the statement of cash flows
There are two methods to prepare this statement:
* Direct method.
* Indirect method.
The only difference between the two methods is the way of converting the operating activities from the accrual basis to the cash basis. Both methods arrive at the same amount "Net cash provided by operating activities". 
STATEMENT OF CASH FLOWS-INDIRECT METHOD

Example:

Presented below is information related to Al Sham Company. Use it to prepare a statement of cash flows using the Indirect Method:

<table>
<thead>
<tr>
<th>Al Sham Company</th>
<th>Comparative Balance Sheet</th>
<th>December 31</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$ 54,000 2003</td>
<td>$ 37,000 2002</td>
</tr>
<tr>
<td>Accounts receivables</td>
<td>64,000</td>
<td>26,000</td>
</tr>
<tr>
<td>Inventories</td>
<td>54,000</td>
<td>0</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>4,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Land</td>
<td>45,000</td>
<td>70,000</td>
</tr>
<tr>
<td>Building</td>
<td>200,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Accumulated depreciation-buildings</td>
<td>21,000</td>
<td>11,000</td>
</tr>
<tr>
<td>Equipment</td>
<td>193,000</td>
<td>68,000</td>
</tr>
<tr>
<td>Accumulated depreciation-equipment</td>
<td>28,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Totals</td>
<td>569,000</td>
<td>386,000</td>
</tr>
<tr>
<td><strong>Liabilities and stockholders' Equity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>$ 23,000</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Accrued expenses payable</td>
<td>10,000</td>
<td>0</td>
</tr>
<tr>
<td>Bonds payable</td>
<td>110,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Common stock ($ 1 par)</td>
<td>220,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>206,000</td>
<td>136,000</td>
</tr>
<tr>
<td>Total</td>
<td>569,000</td>
<td>386,000</td>
</tr>
</tbody>
</table>
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Al Sham Company
Income Statement
For the Year Ended December 31

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$890,000</td>
</tr>
<tr>
<td>Cast of goods sold</td>
<td>$465,000</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>222,000</td>
</tr>
<tr>
<td>Interest expense</td>
<td>12,000</td>
</tr>
<tr>
<td>Loss on sale of equipment</td>
<td>2,000</td>
</tr>
<tr>
<td>Income from operation</td>
<td>190,000</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>65,000</td>
</tr>
<tr>
<td>Net income</td>
<td>$125,000</td>
</tr>
</tbody>
</table>

Additional information
1. Operating expenses include depreciable expense of $33,000 and charges from prepaid expenses of $2,000.
2. Land was sold at its book value for cash.
3. Cash dividends of $55,000 were declared and paid in cash.
4. Interest expense of $12,000 was paid in cash.
5. Equipment with a cost of $166,000 was purchased for cash. Equipment with a cost of $41,000 and a book value of $36,000 was sold for $34,000 cash.
6. Bonds of $10,000 were redeemed at their book value for cash. Bonds of $30,000 were converted into common stock.
7. Common stock ($1 Par) of $130,000 was issued for cash.
8. Accounts payable pertain to merchandise suppliers.

STEP 1: Determine the net increase / decrease in cash:
From the balance sheet, net increase in cash is $17,000.

STEP 2: determine net cash provided / used by operating activities:
The indirect method adjusts net income for items that affected reported net income but did not affect cash.

This adjustment is made by adding (or deduction) items not affecting cash, to arrive at net cash provided by operating activities.
Those additions and deductions consist of:
1. Changes in specific current assets and current liabilities.
2. Non cash charges reported in income statement.
Following is a summery of the above mentioned adjustments.

<table>
<thead>
<tr>
<th>Current Assets and Current Liabilities</th>
<th>Adjustments to Convert Net Income to Net Cash Provided by Operating Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts receivable</td>
<td>(n): Decrease Increase</td>
</tr>
<tr>
<td>Inventory</td>
<td>(n): Decrease Increase</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>(n): Decrease Increase</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>(n): Increase Decrease</td>
</tr>
<tr>
<td>Accrued expenses payable</td>
<td>(n): Increase Decrease</td>
</tr>
</tbody>
</table>

Adjustments for the non-cash charges reported in the income statement are made as follows:

<table>
<thead>
<tr>
<th>Non-cash Charges</th>
<th>Adjustments to Convert Net Income to Net Cash Provided by Operating Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation expense</td>
<td>Add</td>
</tr>
<tr>
<td>Patent amortization expense</td>
<td>Add</td>
</tr>
<tr>
<td>Depletion expense</td>
<td>Add</td>
</tr>
<tr>
<td>Loss on sale of asset</td>
<td>Add</td>
</tr>
</tbody>
</table>

STEP 3: Determine net cash provided / used by investing and financing activities:
First of all, we should have a look on the balance sheet to determine changes in Long term assets and liabilities. Each change is then analyzed to determine its effect on cash.

STEP A: Net cash provided by investing activities:
In our example, investing activities are the sale of the land and equipment (cash inflows) and the purchase of the new equipment (cash outflows).

STEP B: Net cash provided by financing activities:
The financing activities can be divided into two categories:
a. Repaying (redemption) of the amounts previously borrowed (bonds). This represents cash outflows.
b. Obtaining capital from owners (sale of common stock) and making dividends. This represents cash inflows and outflows respectively.
Al Sham Company  
Statement of Cash Flows – Indirect Method  
For the Year Ended December 31, 2002

<table>
<thead>
<tr>
<th>Cash flows from operating activities:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$ 125,000</td>
</tr>
<tr>
<td>Adjustments to reconcile net income to net cash provided by operating activities:</td>
<td></td>
</tr>
<tr>
<td>Depreciation expense</td>
<td>$ 33,000</td>
</tr>
<tr>
<td>Increase in accounts receivable</td>
<td>(42,000)</td>
</tr>
<tr>
<td>Increase in Inventory</td>
<td>(54,000)</td>
</tr>
<tr>
<td>Decrease in prepaid expenses</td>
<td>2,000</td>
</tr>
<tr>
<td>Decrease in accounts payable</td>
<td>(17,000)</td>
</tr>
<tr>
<td>Increase in accrued expenses payable</td>
<td>10,000</td>
</tr>
<tr>
<td>Loss on sale of equipment</td>
<td>2,000</td>
</tr>
<tr>
<td>Net cash provided by operations activities</td>
<td>59,000</td>
</tr>
</tbody>
</table>

Cash flows from investing activities

| Sale of land                                       | 25,000   |
| Sale of equipment                                  | 34,000   |
| Purchase of equipment                              | 66,000   |
| Net cash used by investing activities              | 107,000  |

Cash flows from financing activities

| Redemption of bonds                                | 10,000   |
| Sale of common stock                               | 130,000  |
| Payment of dividends                               | 55,000   |
| Net cash provided by financing activities           | 65,000   |

Net increase in cash

| Net increase in cash                               | 17,000   |
| Cash at beginning of period                         | 37,000   |
| Cash at end of period                               | $ 54,000 |
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Supplemental schedule of non-cash investing and financing activities:

| Conversion of bonds into common stock | $ 30,000 |

STATEMENT OF CASH FLOWS-DIRECT METHOD
To illustrate the preparation of the statement using this method, we will use the same example presented above.

STEP 1: determine the net increase / decrease in cash:
From the balance sheet, net increase in cash is $ 17,000

STEP 2: Determine net cash provided / used by operating activities:
Under the DIRECT METHOD, net cash provided used by operating activities is computed by adjusting each item in the income statement from the accrual basis to the cash basis.
Note: an efficient way to apply the direct method is to analyze the items reported in the income statement in the order in which they are listed.

Below is an illustration of the major classes of cash receipts and payments:
Cash Receipts - Cash Payments = Net cash provided by operating activities

- From sales of goods and services to customers
- From receipts of interest and dividends on loans
  - To suppliers
  - To employees
  - For operating expenses
  - For interest
  - For taxes

Net cash provided by operating activities
As illustrated above, you should compute cash received from customers and cash paid to different parties for operating activities.

To simplify this computation, following is an illustration of the major reconciliations that should be made to the accounts in order to compute the net cash provided from operating activities:

<table>
<thead>
<tr>
<th>Cash receipts from customers</th>
<th>Revenues + Decrease in accounts receivables or From sales Increase in accounts receivables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash payments to suppliers</td>
<td>Cost of Goods + Increase in inventory + Decrease in accounts payable Sold - Decrease in inventory - Increase in .</td>
</tr>
<tr>
<td>Cash payments for operating expenses</td>
<td>Operating Expenses + Increase in prepaid Expenses Or - Decrease in prepaid Expenses Or + Decrease in accrued expenses payable Or - Increase in Accrued expenses</td>
</tr>
</tbody>
</table>

Cash payments to employees, for interest, or for taxes should be treated in a way similar to that of operating expenses.

STEP: Determine net cash provided / used by investing and financing activities:
Steps of determining cash provided / used by investing and financing activities do NOT DIFFER FROM those illustrated when using the INDIRECT METHOD.
<table>
<thead>
<tr>
<th>Cash flows from operating activities:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash received from customers</td>
<td>$. 848.000</td>
</tr>
<tr>
<td>Cash Payments</td>
<td></td>
</tr>
<tr>
<td>Cash paid to suppliers</td>
<td>$.536.000</td>
</tr>
<tr>
<td>Cash paid for operating expenses</td>
<td>76.000</td>
</tr>
<tr>
<td>Increase paid</td>
<td>12.000</td>
</tr>
<tr>
<td>Income tax paid</td>
<td>65.000 789.000</td>
</tr>
<tr>
<td>Net cash provided by operations activities</td>
<td>59.000</td>
</tr>
<tr>
<td>Cash flows from investing activities</td>
<td></td>
</tr>
<tr>
<td>Sale of land</td>
<td>25.000</td>
</tr>
<tr>
<td>Sale of equipment</td>
<td>34.000</td>
</tr>
<tr>
<td>Purchase of equipment</td>
<td>166.000</td>
</tr>
<tr>
<td>Net cash used by investing activities</td>
<td>107.000</td>
</tr>
<tr>
<td>Cash flows from financing activities</td>
<td></td>
</tr>
<tr>
<td>Redemption of bonds</td>
<td>10.000</td>
</tr>
<tr>
<td>Sale of common stock</td>
<td>130.000</td>
</tr>
<tr>
<td>Payment of dividends</td>
<td>55.000</td>
</tr>
<tr>
<td>Net cash provided by financing activities</td>
<td>65.000</td>
</tr>
<tr>
<td>Net increase in cash</td>
<td>17.000</td>
</tr>
<tr>
<td>Cash at beginning of period</td>
<td>37.000</td>
</tr>
<tr>
<td>Cash at end of period</td>
<td>$ 54.000</td>
</tr>
</tbody>
</table>

Supplemental schedule of non-cash investing and financing activities:

<table>
<thead>
<tr>
<th>Non-cash investing and financing activities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion of bonds into common stock</td>
<td>$ 30.000</td>
</tr>
</tbody>
</table>

Note: Appendix 1 illustrate the typical cash receipts and payments of a business enterprise that are classified according to the components mentioned in the lecture.
### Operating

**Cash inflows**
- From sales of goods or services
- From returns on loans (interest) and on equity
- Securities (dividends)

**Cash out flows**
- To suppliers for inventory
- To employees for services
- To government for taxes
- To lenders for interest
- To others for expenses

### Investing

**Cash inflows**
- From sale of property, plant, and equipment
- From sale of debt or equity securities of other entities
- From collection of principal loans to other entities

**Cash out flows**
- To purchase property, plant and equipment
- To make loans to other entities
- To purchase debt or equity securities of other entities

### Financing

**Cash inflows**
- From sale of equity securities
- From issuance of debt (bonds and notes)

**Cash out flows**
- To stockholders as dividends
- To redeem long term debt or reacquire capital stock

### LONG LIVED ASSETS

**I. INTRODUCTION:**
Assets are usually divided into two major groups current and non current Non current assets are also divided into four group's
1. Tangible (fixed) assets,
2. Intangible,
3. Long term investments and
4. Other receivables.
II. FIXED ASSETS (TANGIBLES)

Fixed assets are tangible (real) resources that are used in the operations of a business and are not intended for sale to customers. They are called property, plant and equipment. These assets are generally long-lived. They are expected to provide services to the company for a number of years. Except for land, plant assets decline in service potential over their useful lives.

Fixed assets are often subdivided into four classes:

1. Land: such as a building site.
2. Land improvements: such as driveways, parking lots, fences, and Underground sprinkler system.
3. Buildings: such as stores, offices, factories, and warehouses.
4. Equipment: such as cash registers, coolers, office furniture, and factory machinery.

III. Determining the cost of fixed assets

Fixed assets are recorded at cost in accordance with the cost principles of accounting (historical cost). Cost consists of all expenditures necessary to acquire the assets and make it ready for its intended use. For example, the cost of a factory machinery includes the purchase price, freight costs paid by purchaser, and installation costs. Once cost is established, it becomes the basis of accounting for fixed asset over its useful life.

The application of the cost principle to each of the major classes of fixed assets is discussed in the following explanations and examples:

A-LAND

Example, if the cash price of a land is $4,500,000 and the purchaser agrees to pay accrued taxes of $500,000 and to assume a mortgage of $200,000, the cost of the land is $4,200,000.

Some times a company may purchase a land with a building on it and this company wants to construct a new building. In this case, all demolition (destruction) and removal costs, less any proceeds from salvaged materials, are debited to the land account.

Example:

On May 1, 2002, A-H-A Co purchased as new location site for $10,000,000. The old building on the property was razed, and salvaged materials resulting from excavation were sold. Additional costs incurred and salvage proceeds during May 2002 were as follows:

- Cost to raze old buildings: $250,000
- Legal fee for attorney: $50,000
- Title guarantee insurance: $60,000
- Proceeds from sale of salvaged materials: $100,000

In A-H-A books, what amount should be recorded as land:

A- $10,360,000  
B- $10,260,000  
C- $10,200,000  
D- $10,460,000
B-Equipment

Example:
Assume that ABC has purchased a factory machinery at a cash price of $500,000, The related expenditures consist of sales taxes $30,000, Insurance while in transit $15,000, and installation and testing fees $10,000. So, The cost of the factory machinery should be:

a- 555,000  
b. 540,000  
c. 530,000  
d. 545,000

IV. DISPOSAL OF FIXED ASSETS
In a disposal of fixed assets by sale, the book value of the asset is compared with the proceeds received from the sale. If the proceeds of the sale exceed the book value, a gain on disposal occurs. If the proceeds of sale are less than the book value, a loss on disposal occurs.

Example:
Assume that on July 1, 2002 Wright Company sold an office lumiture for $160,000 cash. The office furniture originally cost was $600,000. As of January 1, 2002, it had accumulated depreciation of $410,000. Depreciation for the first 6 months of 2002 was $80,000. The result of disposal is computed as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of office furniture</td>
<td>600,000</td>
</tr>
<tr>
<td>Less: accumulated depreciation</td>
<td>490,000</td>
</tr>
<tr>
<td>Book value at date of disposal</td>
<td>110,000</td>
</tr>
<tr>
<td>Proceeds from sale</td>
<td>160,000</td>
</tr>
<tr>
<td>Gain on disposal (Note it is not profit)</td>
<td>50,000</td>
</tr>
</tbody>
</table>

If the furniture were sold for $100,000, the result of transaction would result in a $10,000 loss.

V. EXCHANGE OF FIXED ASSETS:
Fixed assets may also be disposed of through exchange- Exchanges can be for either similar or dissimilar assets. In an exchange of similar assets, the new asset performs the same function as the old one, while in an exchange of dissimilar assets the new asset performs functions different from the old one.
In exchange of similar fixed assets, it is necessary to determine two things:
1- The cost of the asset acquired.
2- The gain or loss on the asset given up.
The cost of the asset acquired is the fair market value of the asset given up plus the cash paid. The gain or loss on disposal is the difference between the fair market value and the book value of the asset given up. These determinations are explained and illustrated below.

A-Loss Treatment
A loss on the exchange of similar assets is recognized immediately. To illustrate Assume that Wright Company exchange old office equipment for new office equipment. The book value of the old equipment is $260,000 (cost $700,000 less accumulated depreciation $440,000). Its fair market value is $100,000, and cash of $810,000 is paid. The cost of the new office equipment is computed as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair market value of old office equipment</td>
<td>100,000</td>
</tr>
<tr>
<td>Cash paid</td>
<td>810,000</td>
</tr>
<tr>
<td>Cost of new office equipment</td>
<td>910,000</td>
</tr>
</tbody>
</table>

A Loss on disposal of $160,000 on this exchange is incurred. The reason is that the book value is greater than the fair value of the asset given up. The computation is as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book value of old office equipment (700,000-440,000)</td>
<td>260,000</td>
</tr>
<tr>
<td>Fair market value of old office equipment</td>
<td>100,000</td>
</tr>
<tr>
<td>Loss on disposal</td>
<td>160,000</td>
</tr>
</tbody>
</table>

The entry for the above transaction is as follows.

- Office Equipment (new) 910,000
- Accumulated depreciation - equipment (old) 440,000
- Loss on disposal 160,000
- Office equipment (old) 700,000
- Cash 810,000

To record exchange of old office equipment for similar new equipment

**B-Gain Treatment**

In gain situation we should distinguish between two cases:

a- gain situation — no cash received
b- gain situation — some cash received

a- Gain Situation — no cash received

In this case, the company should not recognize any gain on the exchange, but instead, such a gain should be deducted from the cost of the new asset. In other words, the exchange does not complete the earning? process, so any gain should be deferred.

To illustrate assume that Hertz Co- has a fleet of Ford cars. Hertz management is interested in increasing the variety of cars in its rental fleet by adding new Mazda models. Hertz arranges with BUDGET Co. to exchange a group of Ford cars with a fair value of $1,600,000 and a book value of $1,350,000 (cost $1,500,000 less accumulated depreciation $150,000) for a number of Mazda models with a fair value of $1,700,000.
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Professional Practical Training

HERTZ pays $100,000 in cash in addition to the Ford cars exchanged. The total gain to HERTZ is computed as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value of Ford cars exchanged</td>
<td>1,600,000</td>
</tr>
<tr>
<td>Book value of Ford cars exchanged</td>
<td>1,350,000</td>
</tr>
<tr>
<td>Total gain (unrecognized)</td>
<td>250,000</td>
</tr>
</tbody>
</table>

But the earning process is not considered completed in this transaction. The company still has a fleet of cars, although different models. Therefore, the total gain is deferred and basis of the Mazda cars is reduced via two different but acceptable computations as shown below.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value of Mazda cars</td>
<td>1,700,000</td>
</tr>
<tr>
<td>Book value of Ford cars</td>
<td>1,350,000</td>
</tr>
<tr>
<td>Less Gain deferred</td>
<td>-250,000</td>
</tr>
<tr>
<td>Cash paid</td>
<td>100,000</td>
</tr>
<tr>
<td>Basis of GM cars</td>
<td>1,450,000</td>
</tr>
<tr>
<td>Basis of CM cars</td>
<td>1,450,000</td>
</tr>
<tr>
<td>Basis of GM cars</td>
<td>1,450,000</td>
</tr>
<tr>
<td>Basis of CM cars</td>
<td>1,450,000</td>
</tr>
</tbody>
</table>

The entry by Hertz to record this transaction is as follows:

Cars (Mazda)                                  1,450,000
Accumulated depreciation (Ford)               150,000
Cars (Ford)                                   1,500,000
Cash                                         100,000

To record exchange of cars

The gain that reduced the basis of the new cars will be recognized when those cars are sold to an outside party.

**b-Similar assets- gain situation, some cash received**

When cash received in an exchange of similar assets, part of fixed assets is considered sold and part exchanged, therefore only a portion of the gain is deferred. The general formula for gain recognition when some cash is received is as follows:

\[
\text{Cash received (Boot)} + \text{Fair value of other assets} \times \frac{\text{Total}}{\text{Recognized}} = \text{Gain} \text{ gain}
\]

If the book value of Budget Mazda cars exchanged in the foregoing example is $1,360,000 (cost $2,000,000 less accumulated depreciation $640,000) then the total gain on the exchange to Budget would be computed as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value of Mazda cars exchanged</td>
<td>1,700,000</td>
</tr>
<tr>
<td>Book value of Mazda cars exchanged</td>
<td>1,360,000</td>
</tr>
<tr>
<td>Total Gain</td>
<td>340,000</td>
</tr>
</tbody>
</table>
But because budget received $100,000 in cash, the recognized gain on this transaction is computed as follows:

\[
\frac{100,000}{100,000 + 1,600,000} \times 340,000 = 20,000
\]

The ratio of cash to the total consideration received \((100,000 + 1,600,000)\) is the portion of the total gain \((340,000)\) to be recognized - that is $20,000.

Because only a gain of $20,000 is recognized on the transaction, the remaining $320,000 is deferred and reduces the basis (recorded cost) of the new cars. The computation of the basis is as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value of Ford cars</td>
<td>1,600,000</td>
</tr>
<tr>
<td>Less: Gain deferred</td>
<td>-320,000</td>
</tr>
<tr>
<td>Basis of GM cars</td>
<td>1,280,000</td>
</tr>
</tbody>
</table>

The entry by Budget to record this transaction is as follows:

Cash                                                 100,000
Cars (Ford)                                        1,280,000
Accumulated depreciation - Mazda        640,000
Cars (Mazda)                                     2,000,000
Gain on disposal                                     20,000
To record exchange of cars

Example
On December 31, 2001. R-A-I Co- traded equipment with an original cost of $150,000 and accumulated depreciation of $90-000 for similar productive equipment with a fair value of $ 90,000. In addition Ron .Co received $45,000 cash. What is the carrying amount of the equipment received at December 31?
A- $40,000  C-$90,000
B- $60,000  D-$75,000

VI. DEPRECIATION:
Depreciation is the allocation of the cost of fixed asset to expense over its useful (service) life in a rational and systematic manner. Cost allocation provides for the proper matching of expenses with revenues in accordance with the matching principle. Depreciation is a process of cost allocation, not a process of asset valuation. The change in an asset's market value is not measured during
ownership because fixed assets are not held for resale. So, the book value (cost less accumulated depreciation) of fixed asset may be quite different from its market value.

Depreciation applies to three classes of fixed assets: land improvements, buildings and equipment. During a depreciable asset's useful life, its revenue producing ability will decline because of wear and tear. Revenue producing ability may also decline because of obsolescence. Obsolescence is the process of becoming out of date before the asset physically wears out (been depreciated). For this reason, me recent accounting standards have required a test for impairment of the fixed assets with recognition of impairment loss, if necessary. It is important to understand that recognizing depreciation on an asset does not result in an accumulation of cash for replacement of asset. The balance in accumulated depreciation represents the total cash that has been charged to expense. It is not a cash fund.

1- FACTORS IN COMPUTING DEPRECIATION

Three factors affect the computing of depreciation:
1- Cost: issues affecting the cost of a depreciable asset were explained earlier.
2- Useful Life'. Useful life is an estimate of the expected productive life, also called service life, of the asset. Useful life may be expressed in terms of time, units of activity (such as machine hours), or units of output. Useful life is an estimate.
3- Salvage value: salvage value is an estimate of the asset's value at the end of its useful life. This value may be based on the assets worth as scrap or on its expected trade-in value. Like useful, salvage value is an estimate.

2- DEPRECIATION METHODS

Depreciation is generally computed using one of the following methods:

A. Straight — line
B. Units - of-activity
C. Declining-balance
D. Sum of year digit

Each method is acceptable under generally accepted accounting principles. Management selects the method it believes to be appropriate. The objective is to select the method that best measures an asset's contribution to revenue over its useful life. Once a method is chosen, it should be applied consistently over the useful life of the asset. Consistency enhances the comparability of financial statements.

We will compare the four depreciation methods using the following date for a production machine purchased by CSC on January 1, 2002.

<table>
<thead>
<tr>
<th>Cost</th>
<th>1,300,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected salvage value</td>
<td>100,000</td>
</tr>
<tr>
<td>Estimated useful life in years</td>
<td>5</td>
</tr>
<tr>
<td>Estimated useful life in units</td>
<td>100,000</td>
</tr>
</tbody>
</table>
Depreciation affects the balance sheet through accumulated depreciation and the income statement through depreciation expense.

A. STRAIGHT-LINE METHOD
Under the straight-line method depreciation is the same for each year of the asset's useful life- It is measured solely by the passage of time-The computation of depreciation expense using the straight line basis in the first year for CSC is shown below:

\[
\begin{array}{c|c|c|c}
\text{Cost} & \text{Salvage Value} & = & \text{Depreciable Cost} \\
1,300,000 & 100,000 & & 1,200,000 \\
\text{Depreciable} & \text{Useful life (In years)} & = & \text{Annual Depreciation Expense} \\
1,200,000 & 5 & & 240,000 \\
\end{array}
\]

Alternatively, we also can compute an annual rate of depreciation. In this case the rate is 20% (100% - 5 years). When an annual straight-line rate is used, the percentage rate is applied to the depreciable cost of the asset The use of an annual rate is shown in the following depreciation schedule:

\[
\begin{array}{c|c|c|c|c|c}
\text{Year} & \text{Depreciable} & \text{Depreciation} & \text{Depreciation} & \text{Accumulated} & \text{Book} \\
2002 & 1,200,000 & 240,000 & 240,000 & 1,060,000 \\
2003 & 1,200,000 & 240,000 & 450,000 & 820,000 \\
2004 & 1,200,000 & 240,000 & 720,000 & 580,000 \\
2005 & 1,200,000 & 240,000 & 960,000 & 340,000 \\
2006 & 1,200,000 & 240,000 & 1,200,000 & 100,000 \\
\end{array}
\]

Note that the depreciation expense of $240,000 is the same each year. The book value at the end of the useful life is equal to the estimated $100,000 Salvage value.
In the case of purchasing the asset during the year, rather than on January 1, it is necessary to prorate the annual depreciation on a time basis- If CSC purchased the machine on April 1,2002, the depreciation for 2002 would be $180,000 (1,200,000x20%x9-12).

**B. UNITS OF ACTIVITY METHOD**

Under the units of activity method, useful life is expressed in terms of total units of production or use expected from the asset, rather than as a time period.

The units of activity method are ideally suited to factory machinery. Production can be measured in units of output or in machine hours- This method can also be used for such assets as delivery equipment (miles driven) and airplanes (hours in use). The units of activity method are generally not suitable for buildings or furniture, because depreciation for these assets is more function of time than of use.

To illustrate the use of this method, assume that CSC company's production machine produces 15,000 unit in the first year- The computation of depreciation expense in the first year is:

<table>
<thead>
<tr>
<th>Depreciable Cost</th>
<th>/</th>
<th>Total units Of activity</th>
<th>=</th>
<th>Depreciable Cost per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,200,000</td>
<td></td>
<td>100,000</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Depreciation Cost per unit X Useful life Activity during first year = Annual Depreciation Expense

<table>
<thead>
<tr>
<th>Year</th>
<th>Units Of Activity</th>
<th>Depreciation</th>
<th>Depreciation</th>
<th>Accumulated Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The units of activity depreciation schedule, using assumed production unit, is as follow:

<table>
<thead>
<tr>
<th>X COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMputation</td>
</tr>
<tr>
<td>Annual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Units Of Activity</th>
<th>Depreciation</th>
<th>Depreciation</th>
<th>Accumulated Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Activity | Cost/unit | Expense | Depreciation | Value |
|---------|-----------|---------|--------------|-------|
This method is easy to apply when assets are purchased during the year. In such a case, the productivity of the asset for the partial year is used in computing the depreciation.

C. DECLINING BALANCE METHOD
The declining balance method produces a decreasing annual depreciation expense over the assets useful life. The method is so named because the periodic depreciation is based on a declining book value (cost less accumulated depreciation) of the asset. Annual depreciation expense is computed by multiplying the book value at the beginning of the year by the declining balance depreciation rate. The depreciation rate remains constant from year to year, but the book value to which the rate is applied declines each year.

Unlike the other depreciation methods, the declining balance method does not use depreciable cost. That is, salvage value is ignored in determining the amount to which the declining balance rate is applied.

Salvage value, however, does limit the total depreciation that can be taken. Depreciation stops when the asset's book value equals expected salvage value.

A common declining balance rate is double the straight line rate. As a result the method is often referred to as the double declining balance method. If CSC uses the double declining balance method, the depreciation rate is 40% (2 X the straight line rate of 20%). The computation of depreciation for the first year on the production machine is:

<table>
<thead>
<tr>
<th>Book value at the beginning of year</th>
<th>Declining Balance Rate</th>
<th>Annual Depreciation Expense</th>
</tr>
</thead>
</table>

(X)
The depreciation schedule under this method is as follows.

<table>
<thead>
<tr>
<th>Year</th>
<th>Book Value</th>
<th>Depreciation Rate</th>
<th>Depreciation Expense</th>
<th>Accumulated Depreciation</th>
<th>Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X =</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>1,300,000</td>
<td>40%</td>
<td>520,000</td>
<td>520,000</td>
<td>780,000</td>
</tr>
<tr>
<td>2003</td>
<td>780,000</td>
<td>40%</td>
<td>312,000</td>
<td>832,000</td>
<td>468,000</td>
</tr>
<tr>
<td>2004</td>
<td>468,000</td>
<td>40%</td>
<td>178,200</td>
<td>1,019,200</td>
<td>280,800</td>
</tr>
<tr>
<td>2005</td>
<td>280,000</td>
<td>40%</td>
<td>112,320</td>
<td>1,131,520</td>
<td>168,480</td>
</tr>
<tr>
<td>2006</td>
<td>168,000</td>
<td>40%</td>
<td>68,480</td>
<td>1,200,000</td>
<td>100,000</td>
</tr>
</tbody>
</table>

You can see that the machine is 69% depreciated at the end of the second year. Under the straight line method it would be depreciated 40% at that time. Because the declining balance method produces higher depreciation expense in the early years than in the later years, it is considered an accelerated depreciation method. The declining balance method is compatible with the matching principle. The higher depreciation expense in early years is matched with the higher benefits received in these years. On the other hand, lower depreciation expense is recognized in later years when the assets contribution to revenue is less. Also some assets lose usefulness rapidly because of obsolescence. In these cases, the declining balance method provides a more appropriate depreciation amount.

When an asset is purchased during the year the first year's declining balance depreciation must be prorated on a time basis.

**D. SUM-OF-THE-YEAR-DIGIT**
The sum — of the —years-digits method result in a decreasing depreciation charge based on a decreasing fraction of depreciable cost (original cost less salvage value). Each fraction uses the sum of the years as a denominator (5+4+3+2+1=15) and the number of years of estimated life remaining as the beginning of the year as numerator. In this method, the numerator decreases year by year and the denominator remains constant (5/15, 4/15, 3/15, 2/15 and 1/15). At the end of the assets life, the balance remaining should be equal to the salvage value.

The depreciation schedule under this method is as follows.

<table>
<thead>
<tr>
<th>Year</th>
<th>Book Value</th>
<th>Depreciation Rate</th>
<th>Depreciation Expense</th>
<th>Accumulated Depreciation</th>
<th>Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X =</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>1,300,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>780,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>468,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>280,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>168,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SPECIAL ISSUES REGARDING THE FIXED ASSETS

I- CASH DISCOUNTS

When plant assets are purchased subject to cash discounts for prompt payment, how should the discount be reported?

1. If the discount is taken, it should be considered a reduction in the purchase price of the asset.

2. If the discount is not taken, two points of view exist:
   a. The discount, whether taken or not, is considered a reduction in the cost of the asset. The rationale for this approach is that the real cost of the asset is the cash or cash equivalent price of the asset.
   b. The discount should not always be considered a loss because the terms may be unfavorable or because it might not be prudent for the company to take the discount. At present, both methods are employed in practice. The former method is generally preferred.

II- LUMP SUM PURCHASE

When a group of plant assets is purchased at a single lump sum price, the practice is to allocate the total cost among the various assets on the basis of their relative fair market values. The assumption is that costs will vary in direct proportion to sales value.

To illustrate. Assume that Wattar Appliances, Inc. decides to purchase several assets of Al Hafez Co., for $80,000. The following information was available regarding the purchase:
Sham International Academy

Professional Practical Training

<table>
<thead>
<tr>
<th></th>
<th>Book Value</th>
<th>Fair Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>$30,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>Land</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Building</td>
<td>35,000</td>
<td>50,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$85,000</strong></td>
<td><strong>$100,000</strong></td>
</tr>
</tbody>
</table>

The $80,000 purchase price would be allocated on the basis of the relative fair market values as follows:

- **Inventory**: $30,000
  - $30,000
  - $100,000
  - $20,000
- **Land**: $20,000
  - $20,000
  - $100,000
  - $50,000
- **Building**: $50,000
  - $50,000
  - $100,000

III- ACCOUNTING FOR CONTRIBUTIONS

Companies sometimes receive or make contributions (donations or gifts). Such contributions are referred to as nonreciprocal transfers because they are transfers of assets in one direction.

1- When assets are acquired as a donation, the fair value of the asset should be used to establish its value on the books. Two general approaches have been used to record the credit for the asset received.

   **Approach I**: the credit should be to Donated Capital (an additional paid-in capital account).
   
   Dr. Asset (fair value)
   Cr. Additional paid in capital

   **Approach 2**: the credit should be to revenues from contributions.
   
   In a recent standard, the FASB has taken the position that, in general, contributions received should be recognized as revenues in the period received.
   
   Dr. Asset (fair value)
   Cr. Contribution revenue

3- When a nonmonetary asset is contributed as a donation, the amount of the donation should be recorded as an expense at the fair value of the donated asset. If a difference exists between the fair value of the asset and its book value, a gain or loss should be recognized.
**Example:**

Katakita Industries donates land that cost $80,000 and has a fair market value of $1 10,000 to the Municipality for a public park. The entry to record this donation would be:

Dr. Contribution Expense          110,000  
Cr. Land                                         80,000  
Cr. Gain on Disposal of Land          30,000  

In some cases, companies may promise to give some type of asset in the future. The question is whether this promise should be recorded immediately or at the time the assets are given.

- If the promise is unconditional (depends only on the passage of time or on demand by the recipient for performance), the contribution expense and related payable should be reported.
- If the promise is conditional, the expense is recognized in the period benefited by the contribution, which is generally when the asset is transferred.

**IV- COSTS SUBSEQUENT TO ACQUISITION**

After plant assets are installed and ready for use, additional costs are incurred that range from ordinary repair to significant additions. In general, costs incurred to achieve greater future benefits should be capitalized, whereas expenditures that simply maintain a given level of services (as repair and maintenance expenses) should be expensed. In order for costs to be capitalized, one of three conditions must be present:

1. The useful life of the asset must be increased.
2. The quantity of units produced from the asset must be increased.
3. The quality of the units produced must be enhanced.

Many enterprises have adopted the rule that expenditures below, say, $100 or $500, should always be expensed. Expensing long-lived ash trays and waste baskets is an application of the materiality constraint.

Determining the property unit with which costs should be associated is critical. If a fully equipped steamship is considered a property unit, then replacement of the engine might be considered an expense. On the other hand, if the ship's engine is considered a property unit, then its replacement would be capitalized.

Generally, four major types of expenditures are incurred relative to existing assets:

**1- Additions**

Increase or extension of existing assets. Any addition to plant assets is capitalized because a new asset has been created. The addition of a wing to a hospital, for example, increases the service potential of it. Such expenditures should be capitalized and matched against the revenues that will result in future periods.

But the question here: Is the cost that is incurred to tear down an old wall to make room for the
addition a cost of the addition or an expense or loss of the period? The answer is that it depends on the original intent.

- If the company had anticipated that an addition was going to be added later, then this cost of removal is a proper cost of the addition.
- But if the company had not anticipated this development, it should properly be reported as a loss in the current period on the basis that the company was inefficient in its planning.

2- Improvements and Replacements

An improvement (betterments): is the substitution of a better asset for the one currently used (say, a concrete floor for a wooden floor).

A replacement: is the substitution of a similar asset (a wooden floor for a wooden floor).

The question in this regard: how to make the accounting treatment?

If it is determined that the expenditure increases the future service potential of the asset, it should be capitalized in one of three ways:

a- Substitution Approach. Such approach can be used if the carrying amount of the old asset is available. In such a case, it is a simple matter to remove the cost of the old asset and replace it with the cost of the new asset.

Example

CSC decides to replace the pipes in its plumbing system to a newly developed plastic tubing. The old pipe and tubing have a book value of $15,000 (cost of $150,000 less accumulated depreciation of $135,000), and a scrap value of $1,000. The plastic tubing system has a cost of $125,000. Assuming that CSC has to pay $124,000 for the new tubing after exchanging the old tubing, the entry is:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plumbing System</td>
<td>125,000</td>
</tr>
<tr>
<td>Accumulated Depreciation</td>
<td>135,000</td>
</tr>
<tr>
<td>Loss on Disposal of Plant Assets</td>
<td>14,000</td>
</tr>
<tr>
<td>Plumbing System</td>
<td>150,000</td>
</tr>
<tr>
<td>Cash ($125,000-$1,000)</td>
<td>124,000</td>
</tr>
</tbody>
</table>

b- Capitalizing the New Cost. The justification for capitalizing the cost of the improvement or replacement is that even though the carrying amount of the old asset is not removed from the accounts, sufficient depreciation was taken on the item to reduce the carrying amount almost to zero. Although this assumption may not be true in every case, the differences are not often significant.

c- Charging to Accumulated Depreciation. There are times when the quantity or quality of the asset itself has not been improved, but its useful life has been extended. Replacements, particularly, may extend the useful life of the asset, yet may not improve its quality or quantity. In these
circumstances, the expenditure may be debited to Accumulated Depreciation rather than to an asset account. The theory behind this approach is that the replacement extends the useful life of the asset and thereby recaptures some or all of the past depreciation. The net carrying amount of the asset is the same whether the asset is debited or the accumulated depreciation is debited.

3- Rearrangement and Reinstallation
Movement of assets from one location to another which will result in benefit of future periods. An example is the rearrangement and reinstallation of a group of machines to facilitate future production.
If the original installation cost and the accumulated depreciation taken to date can be determined or estimated, the rearrangement and reinstallation cost is handled as a replacement.
If not, the new costs (if material in amount) should be capitalized as an asset to be amortized over those future periods expected to benefit.
If these costs are not material, if they cannot be separated from other operating expenses, or if their future benefit is questionable, they should be immediately expensed.

4- Repairs
Expenditures made to maintain plant assets in operating condition; they are charged to an expense account in the period in which they are incurred on the basis that it is the primary period benefited. Replacing minor parts is an example of maintenance charges.
It is often difficult to distinguish a repair from an improvement or replacement. The major consideration is whether the expenditure benefits more than one year or one operating cycle, whichever is longer.
For example, if a major repair (such as an overhaul) occurs, several periods will benefit and the cost should be handled as an addition, improvement, or replacement NOT as expense.

Summary of Costs Subsequent to Acquisition
The following schedule summarizes the accounting treatment for various costs incurred subsequent to the acquisition of fixed assets.

<table>
<thead>
<tr>
<th>Type of Expenditure</th>
<th>Normal Accounting Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additions</td>
<td>Capitalize cost of addition to asset account</td>
</tr>
<tr>
<td>Improvements and replacements.</td>
<td>(a) Carrying value known: Remove cost of and accumulated depreciation on old asset, recognizing any gain or loss- Capitalize cost of improvement /replacement</td>
</tr>
<tr>
<td></td>
<td>(b) Carrying value unknown:</td>
</tr>
<tr>
<td>1-</td>
<td>1- If the assets useful life is extended., debit accumulated depreciation for cost of improvement /replacement</td>
</tr>
<tr>
<td>2-</td>
<td>2- If the quantity or quality of the asset's productivity is increased,</td>
</tr>
<tr>
<td>rearrangement and reinstall</td>
<td>(a) If original installation cost is known, account for cost of rearrangement reinstalation as a replacement (carrying value known).</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>(b) If original installation cost is unknown and rearrangement/reinstallation cost is material in amount and benefits future periods, capitalize as an asset.</td>
<td></td>
</tr>
<tr>
<td>(c) If original installation cost is unknown and rearrangement/reinstallation cost is not material or future benefit is questionable, expense the cost when incurred.</td>
<td></td>
</tr>
<tr>
<td>Repairs</td>
<td>(a) Ordinary: Expense cost of repairs when incurred.</td>
</tr>
<tr>
<td></td>
<td>(b) Major: As appropriate, treat as an addition, improvement, or replacement.</td>
</tr>
</tbody>
</table>

**SPECIAL ISSUES REGARDING DEPRECIATION:**

**I- DEPRECIATION AND PARTIAL PERIODS:**

In computing depreciation expense for partial periods, it is necessary to determine the depreciation expense for the full year and then to prorate this depreciation expense between the two periods involved. This process should continue throughout the useful life of the asset.

**Example**

Assume that a machine with a 5-year life is purchased by Delta Company for $45,000 (no salvage value) on June 10, 2004. The company's fiscal year ends December 31, and depreciation is charged for 6 2/3 months during that year. The total depreciation for a full year (assuming straight-line depreciation) is $9,000 ($45,000/5), and the depreciation for the first, partial year is:

$$\frac{62/3}{12} \times 9,000 = 5,000$$

How is partial period depreciation calculated when an accelerated method such as sum-of-the-years'-digits or double-declining balance is used?
Example
Assume that an asset was purchased for $10,000 on July 1, 2000, with an estimated useful life of 5 years; the depreciation figures for 2000, 2001, and 2002 are shown below:

<table>
<thead>
<tr>
<th></th>
<th>Sum-of-the-Years'-Digits</th>
<th>Double-Declining Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st full year</td>
<td>(5/15 x $10,000) = $3,333.33</td>
<td>(40% x $10,000) = $4,000</td>
</tr>
<tr>
<td>2nd full year</td>
<td>(4/15 x 10,000) = 2,666.67</td>
<td>(40% x 6,000) = 2,400</td>
</tr>
<tr>
<td>3rd full year</td>
<td>(3/15 x 10,000) = 2,000.00</td>
<td>(40% x 3,600) = 1,440</td>
</tr>
</tbody>
</table>

Depreciation from July 1, 2000, to December 31, 2000:

6/12 x $3,333.33 = $1,666.67  6/12 x $4,000 = $2,000

Depreciation for 2001:

6/12 x $3,333.33 = $1,666.67  6/12 x $4,000 = $2,000

6/12 x 2,666.67 = 1,333.33  6/12 x 2,400 = 1,200

$3,000.00  $3,200

or ($10,000 - $2,000) x 40% = $3,200

Depreciation for 2002:

6/12 x $2,666.67 = $1,333.33  6/12 x $2,400 = $1,200

6/12 x $2,000.00 = 1,000.00  6/12 x $1,440 = 720

$2,333.33  $1,920

or ($10,000 - $5,200) x 40% = $1,920

Depreciation may be computed for the full period on the opening balance in the asset account and no depreciation is charged on acquisitions during the year. Other variations charge a full year's depreciation on assets used for a full year, or charge one-half year's depreciation in the year of acquisition and in the year of disposal (referred to as the "half-year" convention), or charge a full year in the year of acquisition and none in the year of disposal. However, unless otherwise stipulated, depreciation is normally computed on the basis of the nearest full month.

Revision of Depreciation Rates

Since the provisions for depreciation are only estimates, and it may be necessary to revise them during the life of the asset.

If the company revised its estimates about the useful life of the asset, the accounting treatment should be as described in the following example:

Example
Assume that machinery originally costing $90,000 is estimated to have a 20-year life with no salvage value. However, during year 11 it is estimated that the machine will be used an additional 20 years. Its total life, therefore, will be 30 years instead of 20. Depreciation has been recorded at the rate of 1/20 of $90,000, or $4,500 per year by the straight-line method. On the basis of a 30-year life, depreciation should have been 1/30 of $90,000, or $3,000 per year. Depreciation, therefore, has been overestimated, and net income has been understated by $1,500 for each of the past 10 years,
or a total amount of $15,000. The amount of the difference can be computed as shown below.

<table>
<thead>
<tr>
<th></th>
<th>Per Year</th>
<th>For 10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation charged per books (1/20 x $90,000)</td>
<td>$4,500</td>
<td>$45,000</td>
</tr>
<tr>
<td>Depreciation based on a 30-year life (1/30 x $90,000)</td>
<td>$3,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>Excess depreciation charged</td>
<td>$1,500</td>
<td>$15,000</td>
</tr>
</tbody>
</table>

Changes in estimate should be handled in the current and prospective periods. No changes should be made in previously reported results. Opening balances are not adjusted, and no attempt is made to "catch up" for prior periods. The reason is that changes in estimates are a continual and inherent part of any estimation process, and continual restatement of prior periods would occur for revisions of estimates unless they are handled prospectively. Therefore, no entry is made at the time the change in estimate occurs, and charges for depreciation in subsequent periods (assuming use of the straight-line method) are based on dividing the remaining book value less any salvage value by the remaining estimated life:

Machinery 90,000
Less: Accumulated depreciation 45,000
Book value of machinery at end of 10th year $45,000
Depreciation (future periods) = $45,000 book value - 20 years remaining life = $2,250

The entry to record depreciation for each of the remaining 20 years is:

Dr. Depreciation Expense 2,250
Cr. Accumulated Depreciation-Machinery 2,250

INTANGIBLE ASSETS:

Intangible assets are rights, privileges, and competitive advantages that result from the ownership of long-lived assets that do not possess physical substance. Evidence of intangibles may exist in the form of contracts or licenses. Intangibles may arise from:

1 - Government grants such as patents, copyrights, and trademarks.
2 - Acquisition of another business, in which the purchase price includes a payment for the company's favorable attributes (called good will).
3 - Private monopolistic arising from contractual agreements, such as franchises and leases.

In general, accounting for intangible assets parallels the accounting for fixed (tangible) assets. That is, intangible assets are recorded at cost, and this cost is expensed over the useful life of the intangible asset in a rational and systematic manner. At disposal, the book value of the intangible asset is eliminated, and a gain or a loss if any is recorded.

There are several differences between accounting for intangibles assets and accounting for fixed assets. Such differences are described below:

1 - The allocation of the cost of intangible asset to expense is called amortization, rather than
2- To record amortization of an intangible, an amortization expense is debited and the specified intangible asset is credited (rather than crediting a contra account). An alternative is to credit an accumulated amortization account, similar to accumulated depreciation.

3- Cost of acquisition: for fixed assets, cost includes both the purchase price and the costs incurred in designing and constructing the asset. In contrast, cost for an intangible asset includes only the purchase price. Any costs incurred in developing an intangible asset are expensed as incurred.

4- Useful life: the amortization period of an intangible asset cannot be longer than 40 years even though the useful life might be more than 40 years. If the useful life is less than 40 years, the useful life is used. This rule insures that all intangibles, especially those with indeterminable lives, will be written off in a reasonable period of time. Intangible assets are typically amortized on a straight-line basis.

1 - Patent:
A patent is an exclusive right issued by the government that enables the recipient to manufacture, sell, or otherwise control an invention for a definite period (20 years in U.S). The initial cost of patent is the cash or cash equivalent price paid to acquire the patent. Many patents are subject to some type of litigation. Legal costs on owner incurs in successfully defending a patent in an infringement suit are considered necessary to establish the validity of the patent. They are added to the patent account and amortized over the remaining life of the patent.

To illustrate the computation of patent expense, assume that National Labs purchases a patent at a cost of $600,000. If the useful life of the patent is 8 years, the annual amortization expense will be $75,000 ($600,000 / 8). The entry to record the annual amortization is:

Dr. Amortization expense - patents 75,000
Cr. Patents                        75,000
(To record patent amortization)

2 - COPYRIGHTS:
Copyrights are grants from the federal government, giving the owner the exclusive right to reproduce and sell an artistic or published work. Copy rights extend for the life of the creator plus 50 years.

The cost of a copyright is the cost of acquiring and defending it.

3 - TRADEMARKS AND TRADE NAMES:
A trademark or trade name is a word, phrase, or symbol that identifies a particular enterprise or product. Trade names like Big Mac and Microsoft create immediate product identification. They also generally enhance the sale of the product. The creator or original user may obtain exclusive right to the trademark or trade name by registering it.

If the trade name or trademark is purchased by the company that will sell the product, its cost is the
purchase price. If the trade mark or trade name is developed by the company itself, the cost includes attorney's fees, registration fees, design costs, successful legal defense costs, and other expenditures directly related to securing it.

4 - FRANCHISES AND LICENSES:
A franchise is a contractual arrangement under which the franchisor grants the franchisee the right to sell certain products, render specific services, or use certain trademarks or trade names. Franchises and licenses may be granted for a definite period of time, an indefinite period, or perpetual. The cost of a limited life franchise or license should be amortized over the useful life. If the life is indefinite or perpetual, the cost may be amortized over reasonable period not to exceed 40 years.

5 - GOODWILL:
Goodwill is the value of all favorable attributes that relate to a business enterprise. Goodwill is an unusual asset, unlike other assets such as investments and plant assets, which can be sold individually in the marketplace, goodwill can be identified only with the business as a whole. Goodwill is recorded only when there is a transaction that involves the purchase of an entire business. In that case, goodwill is the excess of cost over the fair market value of the net assets acquired. According to SFAS 144 & 145 Good will no longer be amortized, but instead it should be tested for impairment at the end of the year. If the good will is impaired, the entry will be:
Dr. Loss on impairment (other expense in I/S)
Cr. Goodwill
The calculation of the impairment loss is so complex and beyond the scope of the Intermediate Accounting Course

I. Definitions
Cost accounting : an area of accounting that involves the measuring, recording, and reporting of product costs.
Cost accounting system ; consists of accounts for the various manufacturing costs. These accounts are fully integrated into the general ledger of a company.
An accounting feature of a cost accounting system is the use of a perpetual inventory system. Such a system provides immediate, up-to-date information on the cost of a product.
Direct cost: is one that can be specifically associated with a single cost object in an economically feasible way.
Direct labor costs: are wages paid to labor that can feasibly be specifically identified with the production of finished goods.
Direct materials costs: are the costs of raw materials included in finished goods that can feasibly be traced to those goods.
Factory (Manufacturing) overhead: consists of all costs other than direct materials and direct labor that are associated with the manufacturing process. It includes both fixed and variable costs.

Indirect costs: costs that cannot be specifically associated with a given cost object in an economically feasible way. They are also defined as costs that are not directly identified with one final cost object but that are identified with two or more final cost objects.

Fixed costs: those costs that remain unchanged within the relevant range for a given period of time despite fluctuations in activity. Fixed costs per unit change as the level of activity changes. Depreciation, rent, electricity, and insurance are examples of such costs.

Variable costs: those costs that vary directly and proportionately with the fluctuations in activity. Variable costs per unit will not change as the level of activity changes. Direct materials and direct labor are examples of such costs.

Product (inventoriable) costs: include the direct materials, direct labor, and manufacturing overhead allocated to units of output. When the outputs are not sold, those costs are deferred to future periods until the sale takes place.

II. Job Order Cost Accounting

Under a job order cost system, costs are assigned to each job or to each batch of goods.

An important feature of job order costing is that each job (or batch) has its own distinguishing characteristics.

A job order cost system measures costs for each completed job, rather than for set time period.

1. Job order cost flow

The flow of costs (direct materials, direct labor, and manufacturing overhead) in job order cost accounting parallels the physical flow of the materials as they are converted into finished goods.

2. Accumulating manufacturing costs

In job order cost system, manufacturing costs are recorded in the period in which they are incurred.

a. Raw materials costs

The costs of raw materials include all costs incurred till the materials become ready for their intended use. These costs should be debited to Raw Materials Inventory when the materials are received.

Raw materials Account is a control account. The subsidiary ledger consists of individual records for each item of raw materials. The subsidiary ledger is the materials inventory cards.

b. Factory labor Costs

Factory labor Costs consist of:

1. Gross earnings of factory labors,
2. employer payroll taxes on such earnings, and
3. fringe benefits (such as sick pay, pensions, and vacation pay) incurred by the employer, Labor costs are debited to Factory labor when they are incurred.

c. Manufacturing Overhead costs
Manufacturing overhead costs consist of indirect manufacturing costs that cannot be assigned to specific units of production but are incurred as a necessary part of the production process. Property taxes, depreciation, and insurance are examples of manufacturing overhead costs.

Overhead Allocation

Factory overhead is usually allocated to products based upon the level of activity. An activity base should have a high correlation with the incurrence of overhead, e.g., if overhead is largely maintenance and is based upon the frequency of equipment operation the activity base may well be machine hours.

I. In capital-intensive industries: the amount of overhead will probably be related more to machine hours than to rather direct labor hours or direct labor cost.

II. In labor-intensive industries: overhead is usually allocated on a labor activity base. If more overhead is incurred by the more highly skilled and paid employees the overhead rate should be based upon direct labor cost rather than direct labor hours.

III. Overhead is usually not allocated on the basis of units produced because of the lack of a cause-and-effect relationship. Nevertheless when only one product is manufactured this method may be acceptable because all costs are to be charged to the single product.

The predetermined overhead application rate equals budgeted overhead divided by the budgeted activity level (measure of capacity).

1. The use of an annual rate is often preferred. It smoothes cost fluctuations that would otherwise occur as a result of fluctuation in production from month to month, thus higher overhead cost are not assigned to units produced in low production periods and vice versa.

2. A predetermined rate is an easy-to-apply method of charging overhead costs to units for inventory purposes because the quantity of the allocation base (e.g., direct labor hours) is ordinarily known for a batch of product.

3. The denominator of the overhead rate may be defined in terms of various capacity concepts.
   a. Theoretical or ideal capacity.
   b. Practical capacity.
   c. Normal capacity.
   d. Expected actual activity.

3. Assigning manufacturing costs to work in process

Assigning manufacturing costs to work in process results in the following entries:

Dr. Work in process
Cr. Raw materials Inventory
Cr. Factory Labor
Cr. Manufacturing overhead – applied

Assigning the costs to jobs is usually made by using a job cost sheet.
A job cost sheet is a form used to record the costs chargeable to a specific job and to determine the total and unit costs of the completed job.

A separate job cost sheet is kept for each job. The job cost sheets constitute the subsidiary ledger for the Work in Process Inventory account. Each entry to work in Process Inventory must be accomplished by a corresponding posting to one or more job cost sheets.

To illustrate the assignment of the manufacturing costs, we will use the following example:

Assume that Pizza Hut works on one job: A 8. The following information was derived from its manufacturing records:

**Manufacturing Costs incurred:**
- Direct and indirect materials purchased cash $ 54,000
- Factory labor $ 76,000, plus $ 4,000 employer payroll tax.
- Manufacturing overhead exclusive of indirect materials and indirect labor $ 59,800.

**Assignment of Costs:**
- Direct materials: $ 48,000
- Indirect materials: $ 3,000
- Direct labor: $ 78,000
- Indirect labor: $ 2,000

**Manufacturing overhead rate:** 80% of direct labor costs.

Job A 8 was completed and sold on account for $ 225,000.

**Required:**
1. Journalize the above mentioned transactions.
2. What was the amount of under- or over applied manufacturing overhead?

**Solution:**

<table>
<thead>
<tr>
<th>Raw materials Inventory</th>
<th>54,000</th>
<th>54,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(purchase of raw materials cash)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factory labor</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Factory wages payable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer payroll taxes payable</td>
<td></td>
<td>76,000</td>
</tr>
<tr>
<td>(To record factory labor costs)</td>
<td></td>
<td>4,000</td>
</tr>
<tr>
<td>Manufacturing overhead - control</td>
<td>59,800</td>
<td></td>
</tr>
<tr>
<td>Accounts payable and accumulated depreciation (to record overhead costs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work in process inventory</td>
<td>48,000</td>
<td></td>
</tr>
<tr>
<td>Manufacturing overhead - control</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td>Raw materials inventory</td>
<td></td>
<td>51,000</td>
</tr>
</tbody>
</table>

**Raw materials Inventory**

Cash

( purchase of raw materials cash )

Factory labor

Factory wages payable

Employer payroll taxes payable

( To record factory labor costs )

Manufacturing overhead - control

Accounts payable and accumulated depreciation (to record overhead costs )

Work in process inventory

Manufacturing overhead - control

Raw materials inventory
### Sham International Academy

#### Professional Practical Training

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(To assign raw materials to production)</td>
<td></td>
</tr>
<tr>
<td>Work in process inventors</td>
<td>78,000</td>
</tr>
<tr>
<td>Manufacturing overhead — control</td>
<td>2,000</td>
</tr>
<tr>
<td>Factory labor</td>
<td>80,000</td>
</tr>
<tr>
<td>(To assign factory labor to production)</td>
<td></td>
</tr>
<tr>
<td>Work in process inventory</td>
<td>62,400</td>
</tr>
<tr>
<td>Manufacturing overhead - applied</td>
<td>62,000</td>
</tr>
<tr>
<td>(To assign overhead to jobs-80% X $78,000)</td>
<td></td>
</tr>
<tr>
<td>Finished goods inventory</td>
<td>188,400</td>
</tr>
<tr>
<td>Work in process inventory</td>
<td>188,400</td>
</tr>
<tr>
<td>(to record completion of job A 8)</td>
<td></td>
</tr>
<tr>
<td>Accounts receivables</td>
<td>225,000</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>188,400</td>
</tr>
<tr>
<td>Sales</td>
<td>225,000</td>
</tr>
<tr>
<td>Finished goods</td>
<td>188,400</td>
</tr>
<tr>
<td>(to record sale of job A 8)</td>
<td></td>
</tr>
<tr>
<td>Manufacturing overhead - applied</td>
<td>62,400</td>
</tr>
<tr>
<td>Cost of Goods Sold</td>
<td>2,400</td>
</tr>
<tr>
<td>Manufacturing overhead - control</td>
<td>64,800</td>
</tr>
<tr>
<td>(to close M 0 H - applied in M 0 H control)</td>
<td></td>
</tr>
</tbody>
</table>

**Manufacturing Over head**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3)</td>
<td>59,800</td>
</tr>
<tr>
<td>(4)</td>
<td>3,000</td>
</tr>
<tr>
<td>(5)</td>
<td>2,000</td>
</tr>
<tr>
<td>COGS</td>
<td>2,400</td>
</tr>
<tr>
<td>Total</td>
<td>64,800</td>
</tr>
<tr>
<td>Total</td>
<td>64,800</td>
</tr>
</tbody>
</table>

### III. Process cost system

Process cost system are used by companies that mass-produce similar products in a continuous fashion. Once production begins, it continues until the finished products emerges. Each unit of finished product is indistinguishable from every other unit.

What are the similarities between job cost system and Process cost system?

1. both systems track the same cost elements - direct materials, direct labor, and manufacturing overhead.
2. costs are accumulated in the same accounts - Raw Materials, Factory Labor, and Manufacturing Overhead.
3. accumulated costs are assigned to the same accounts - work in process, finished goods inventory,
and cost of goods sold. However the method of assigning costs differs significantly.

What are the differences between job cost system and Process cost system?

1. A Process cost system uses separate accounts for each production department or manufacturing process. On the other hand, only one work in process account is used in the job cost system.
2. In the Process cost system, costs are summarized in a production cost report for each department. In a job cost system, costs are charged to individual jobs and summarized in a job cost sheet.
3. Costs are totaled at the end of a time period in a process cost system and at the completion of a job in a job cost system.
4. Unit cost is calculated as:
   a. Total manufacturing costs for the period / units produced during the period in a process cost system.
   b. Total cost per job / units produced in a job cost system.

1. Process cost flow

   Manufacturing costs for raw materials, labor, and factory overhead are assigned to work in process accounts for various departments or manufacturing processes. The costs of units completed in a department are transferred from one department to another as those units move through the manufacturing process. The costs of completed work are transferred to Finished Goods Inventory. When inventory is sold, costs are transferred to Cost of Goods Sold.

2. Assigning manufacturing costs

   The accumulation of the costs of materials, labor, and manufacturing overhead is the same as in the job order cost system.

   Following is an illustration of how these manufacturing costs are assigned in a process cost system.

   a. Materials Cost

   All raw materials issued for production are a materials cost to the producing department. Materials are usually added to production at the beginning of the first process. However, in subsequent processes, other materials may be added at various points.

   b. Factory Labor Costs

   All labor costs incurred within a producing department are a cost of processing the raw materials.

   c. Manufacturing Overhead Costs

   The objective in assigning overhead in a process cost system is to allocate the overhead costs to production departments on an objective and equitable basis. That basis is the activity that "drive" or causes the costs. A primary driver of overhead costs in continuous manufacturing operations is machine time used, not direct labor. Thus, machine hours are widely used in allocating manufacturing overhead costs.

   d. Transfer to next Department
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At the end of the month, an entry is needed to record the cost of goods transferred out of the department.

e. Transfer to Finished Goods
The units completed in the last department are transferred to the finished goods warehouse.

f. Transfer to Cost of Goods Sold
When finished goods are sold, the entry to record the cost of goods sold

Illustration
Salsabeel Company manufactures soft drinks though two processes: Blending and bottling.
In May 2002, raw materials used for Blending were $18,000 and for Bottling were $4,000.
Factory labor costs for Blending were $12,000 and for Bottling were $5,000.
Manufacturing overhead costs for Blending were $6,000 and for Bottling were $2,500.
Units completed at a cost of $19,000 in the blending department were transferred to the Bottling Department.
Units completed at a cost of $11,000 in the Bottling Department were transferred to Finished Goods.

Required: journalize the assignment of these costs to the two processes and the transfer of units as appropriate.

Solution:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in process - Blending</td>
<td>18,000</td>
</tr>
<tr>
<td>Work in process - Bottling</td>
<td>4,000</td>
</tr>
<tr>
<td>Raw materials inventory</td>
<td></td>
</tr>
<tr>
<td>(To record materials used)</td>
<td>22,000</td>
</tr>
<tr>
<td>Work in process - Blending</td>
<td>12,000</td>
</tr>
<tr>
<td>Work in process - Bottling</td>
<td>5,000</td>
</tr>
<tr>
<td>Factory labor</td>
<td></td>
</tr>
<tr>
<td>(To assign factory labor to production)</td>
<td>17,000</td>
</tr>
<tr>
<td>Work in process - Blending</td>
<td>6,000</td>
</tr>
<tr>
<td>Work in process - Bottling</td>
<td>2,500</td>
</tr>
<tr>
<td>Manufacturing overhead</td>
<td></td>
</tr>
<tr>
<td>(To assign overhead to production)</td>
<td>8,500</td>
</tr>
<tr>
<td>Work in process - Bottling</td>
<td>19,000</td>
</tr>
<tr>
<td>Work in process - Blending</td>
<td>19,000</td>
</tr>
<tr>
<td>(to record transfer of units to the Bottling Department)</td>
<td></td>
</tr>
<tr>
<td>Finished goods Inventory</td>
<td>11,000</td>
</tr>
<tr>
<td>Work in process - Bottling</td>
<td>11,000</td>
</tr>
<tr>
<td>(To record transfer of units to finished goods)</td>
<td></td>
</tr>
</tbody>
</table>
III. Equivalent Units

Equivalent units of production measure the amount of work performed in each production phase in terms of fully processed units during a given period.

An equivalent units of production is a set of inputs required to manufacture one physical unit. When calculating equivalent units of production, incomplete units are restated as the equivalent amount of completed units. The calculation is made separately for materials (transferred in costs are treated as materials for this purpose) and conversion cost (direct labor and overhead).

To illustrate the computation of equivalent units, assume that Nour Co. produce TV sets. Three departments are used to produce these TVs. Information related to the Department No. 1 at the end of May is listed below:

<table>
<thead>
<tr>
<th>Department 1</th>
<th>Percentage Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical Units</td>
</tr>
<tr>
<td>Work in process, May 1</td>
<td>100.000</td>
</tr>
<tr>
<td>Started into production</td>
<td>800.000</td>
</tr>
<tr>
<td>Total</td>
<td>900.000</td>
</tr>
<tr>
<td>Units transferred out</td>
<td>700.000</td>
</tr>
<tr>
<td>Work in process, May 30</td>
<td>200.000</td>
</tr>
<tr>
<td>Total units</td>
<td>900.000</td>
</tr>
</tbody>
</table>

Assume that the costs were:

<table>
<thead>
<tr>
<th>Department 1</th>
<th>Materials</th>
<th>Conversion Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in process, May 1</td>
<td>250,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Costs added</td>
<td>750,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Total</td>
<td>1,000,000</td>
<td>250,000</td>
</tr>
</tbody>
</table>

a. In computing equivalent units, the beginning work in process is not part of the equivalent units of production formula.
b. The units transferred out to the Department 2 are fully complete as to materials and conversion costs.
c. The ending work in process is fully complete as to materials and only 60% complete as to conversion cost.

Two equivalent unit computation are therefore necessary: one for materials and the other for conversion costs. The following illustration shows these computation:
Equivalent Units

<table>
<thead>
<tr>
<th>Units transferred out</th>
<th>Materials</th>
<th>Conversion Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>700,000</td>
<td>700,000</td>
</tr>
<tr>
<td>Work in process, June 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200,000 X 100%</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>200,000 X 60%</td>
<td></td>
<td>120,000</td>
</tr>
<tr>
<td><strong>Total equivalent units</strong></td>
<td>900,000</td>
<td>820,000</td>
</tr>
</tbody>
</table>

Costs of the units is computed as follows:

Materials cost : \( \frac{1,000,000}{900,000} \) = $1.11

Conversion costs : \( \frac{250,000}{900,000} \) = $0.28

Total unit cost = $1.39

The formula used to compute equivalent units of production can be diagramed as follows:

<table>
<thead>
<tr>
<th>Units Completed and Transferred Out - Materials</th>
<th>Equivalent Units of Ending Work in Process - Materials</th>
<th>Equivalent Units of Production Materials</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Units Completed and Transferred Out – Conversion Costs</th>
<th>Equivalent Units of Ending Work in Process – Conversion Costs</th>
<th>Equivalent Units of Production – Conversion Costs</th>
</tr>
</thead>
</table>

I - COST - VOLUME - PROFIT ANALYSIS

1. Definition: Cost - volume - profit (CVP) analysis is the study of the effects of changes in costs and volume on a company's profits.

2. The Use of Cost - volume - profit analysis:

   CVP analysis is very useful in:
   a. Profit planning,
   b. Setting selling prices of the products,
   c. Determining product mix, and
   d. Maximizing the use of production facilities.

3. Basic components

   CVP analysis considers the interrelationships among the following components:

<table>
<thead>
<tr>
<th>Volume or level of activity</th>
<th>Unit selling price</th>
<th>Variable cost per unit</th>
<th>Total fixed costs</th>
<th>Sales mix</th>
</tr>
</thead>
</table>

The following assumptions underline each CVP analysis:

1. The behavior of both costs and revenues is linear throughout the relevant range of the activity index.

2. All costs can be classified with reasonable accuracy as either variable or fixed.
3. Changes in activity are the only factors that affect costs.
4. When more than one type of product is sold, the sales mix will remain constant.
5. Changes in activity are the only factors that affect costs. When these five assumptions are not valid, the results of CVP analysis may be inaccurate.

II- BREAK - EVEN ANALYSIS

1. Definition: Break - even point is the level of activity at which total revenues equal total costs (both fixed and variable). At this level of activity, the company will realize no income and will suffer no loss.
   The process of determining Break - even point is called Break - even analysis.
   Determining the break - even point is very important to the management when it decides whether to introduce new product lines, change sales prices on determined products, or enter new market.

2. Methods of computing the break-even point:
   To illustrate the computation, we will assume that the following data were derived from Sony Co. accounting records:
   Unit selling price                       $ 500
   Unit variable costs                    $ 300
   Total monthly fixed costs         $ 200,000

   a. The mathematical equation:
      The equation for break - even sales is:
      \[ \text{Break-even sales} = \text{Variable costs} + \text{Fixed costs} \]
      The break - even point in dollars is found by expressing variable costs as a percentage of unit selling price. The percentage in our example is 60% ( $ 300 / $ 500), and the needed point is:
      \[ 0.60 \times X + 200,000 = X \]
      \[ 0.40 \times X = 200,000 \]
      \[ X = 500,000 \]
      Therefore, sales must be $ 500,000 for Sony to break even.

   The break - even point in units can be computed using unit selling prices and unit -variable cost.
   The computation is:
   \[ 500 \times X = 300 \times X + 200,000 \]
   \[ 200 \times X = 200,000 \]
   \[ X = 1,000 \text{ unit} \]
   Therefore, Sony should sell 1,000 units to break even.

   b. The contribution margin technique
   Contribution margin ( C M ) is the amount of revenue remaining after deducting variable costs.
   \[ \text{Sales} - \text{Variable costs} = \text{Contribution margin} \]
In our example, the contribution margin is:

\[ \$500,000 - \$300,000 = \$200,000 \]

Contribution margin represents the amount available to cover fixed costs and to contribute income for the company.

Contribution margin can be calculated either per unit or as a ratio

* Contribution margin, per unit can be calculated as follows:

\[
\text{Unit variable costs} - \text{contribution margin} \\
\text{Unit selling price} - \text{costs} = \text{per unit} \\
\text{In our example, the contribution margin per unit is:} \\
\$500 - \$300 = \$200
\]

Contribution margin per unit indicates that for every unit sold, Sony will have $200 to cover fixed costs and contribute to income.

* Contribution margin ratio: the ratio formula is:

\[
\frac{\text{Contribution margin per unit}}{\text{Unit selling price}} = \text{margin ratio} \\
\text{In our example, the Contribution margin ratio is:} \\
\frac{\$200}{\$500} = 40\%
\]

The C M ratio of 40% means that 40 cents of each sales dollar ($1 X 40%) is available to apply to fixed costs and to contribute to income.

3. Computation of break-even point using contribution margin;

According to the concept of break-even point, contribution margin must equal total fixed costs.

Computation of break-even point using contribution margin concepts can be done by using:

1) contribution margin per unit: the formula to compute break-even point in units is as follows:

\[
\frac{\text{Contribution}}{\text{Fixed costs}} \times \frac{\text{margin per unit}}{\text{break – even point in units}} \\
\text{In our example, the break-even point in units is:} \\
\$200,000 \div \$200 = 1,000 \text{ Units}
\]

2) Contribution margin ratio: the formula to compute break-even point in dollars is as follows:

\[
\frac{\text{Contribution}}{\text{Fixed costs}} \times \frac{\text{margin ratio}}{\text{in Dollars}} \\
\text{In our example, the break-even point in dollars is:} \\
\$200,000 \div 40\% = \$500,000
\]

4. Margin of Safety

Margin of safety is another relationship that may be calculated in CVP analysis. Margin of safety is the difference between actual or expected sales and sales at the break-even point. The margin of safety may be expressed in dollars or as a ratio:
a) The formula of stating the margin of safety in dollars is:

\[
\text{Actual sales} - \text{Break-even sales} = \text{Margin of safety in dollars}
\]

Assuming that actual (expected) sales for Sony Co. are $750,000, the computation is:

\[
$750,000 - 500,000 = $250,000
\]

b) The formula of stating the margin of safety ratio is:

\[
\frac{\text{Margin of safety in Dollars}}{\text{Actual sales}} = \text{Ratio}
\]

In our example, the margin of safety ratio is:

\[
\frac{$250,000}{$750,000} = 33\%
\]

5. Target Net Income

A-Target net income is the income objective that the management sets for individual product lines. It indicates the sales necessary to achieve a specified level of income.

B- Methods of computing target net income

a. The mathematical equation:

The formula of calculating the required sales is:

\[
\text{Required sales} = \text{Variable costs} + \text{Fixed costs} + \text{Target income}
\]

Assuming that target net income is $120,000 for Sony Co., the computation of required sales in dollars is as follows:

\[
X = 0.60x +$200,000 +$120,000
\]

\[
0.40x = $320,000
\]

\[
x = $800,000
\]

The sales volume in units at the targeted income level is:

\[
$800,000 - $500 Units
\]

b. The contribution margin technique

The formula of calculating the required sales using this approach is:

\[
\frac{\text{Fixed costs} + \text{Contribution}}{\text{Target net income} \div \text{Margin ratio}} = \text{Required sales}
\]

In our example, the required sales is:

\[
\frac{$320,000}{40\%} = $800,000
\]

6. CVP and Changes in the Business Environment

To illustrate how CVP analysis can be used in responding to business changes, we will look at three independent situations assuming that the Sony Co. data are:
A. What would be the effect of offering a 8 % discount on the selling price in response to a discount made by a competitor ? The offer would result in a change in the break - even sales which can be computed as follows:

\[
\text{Fixed costs} \div \text{Contribution margin per unit} = \text{Break-even sales}
\]

\[
\frac{200,000}{160} = 1,250 \text{ units}
\]

Accordingly, the offer would require monthly sales to increase by 250 units, or 25 %, in order to break even.

B. What would be the effect of an intended investment in new automated equipment that will reduce the amount of direct labor required to make the product and increase the fixed costs. Assuming that variable cost per unit will decrease 40 % and total fixed costs will increase 20 %, the new break - even point will be :

\[
\text{Fixed costs} \div \text{Contribution margin per unit} = \text{Break-even sales}
\]

\[
\frac{240,000}{320} = 750 \text{ units}
\]

These changes appear to be advantageous for Sony Co. The break - even point is reduced by 25 %, or 250 units.

III. VARIABLE AND ABSORPTION COSTING

Variable costing : a costing approach in which only variable manufacturing costs are product ( inventoriable ) costs, and fixed manufacturing costs are treated as period costs ( expenses ).

Absorption costing : a costing approach in which all manufacturing costs are charged to the product.

The differences between absorption costing and variable costing is graphically shown as follows:

Absorption Costing Variable Costing

Fixed

Product Cost Manufacturing Periodic Cost

Overhead

Selling and administrative expenses are period costs under both costing approaches.

To illustrate the computation of unit production cost under the two costing approaches, assume that Nestle Co. manufactures Mars chocolate. Relevant data for Mars in June 2002, the first month of production are :

Selling price $ 20 per unit
Units produced 30,000; sold 20,000; beginning inventory 0.
Variable unit costs: manufacturing $9 ( direct materials $5, direct labor $3, and variable overhead $
1). Selling and administrative expenses $2.
Fixed costs  manufacturing overhead $ 120,000. selling and administrative expenses $ 15,000

The per unit production cost under each costing approach is :

<table>
<thead>
<tr>
<th>Type of cost</th>
<th>Absorption costing</th>
<th>Variable costing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>$ 5</td>
<td>$ 5</td>
</tr>
<tr>
<td>Direct labor</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Variable manufacturing overhead</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fixed manufacturing overhead ($120,000-30,000 Us produced)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total unit cost</td>
<td>$ 13</td>
<td>$ 9</td>
</tr>
</tbody>
</table>

Following is a presentation of the income statement prepared under the variable and absorption costing approaches.

Nestle Company
Income Statements
For the Month Ended June 30,2002
(Absorption Costing)

Sales (20,000 units X $20 ) $400,000
Cost of goods sold
Beginning inventory $-0-
Cost of goods manufactured
(30,000 units XS13) 390,000
Cost of goods available for sale 390,000
Inventory June 30 ( 10,000 units X S 13) 130,000
Cost of goods sold ( 20,000 U X $13) 260,000
Gross profit 140,000
Selling and administrative expenses (variable 20,000U X $2+fixed $15,000 ) 55,000
Income from operations $ 85,000
Nestle Company
Income Statements
For the Month Ended June 30, 2002
(Variable Costing)

Sales (20,000 units X $20) $400,000

Variable expenses
Variable cost of goods sold

Beginning inventory $-0-

Variable manufacturing costs
(30,000 units X $9) 270,000

Cost of goods available for sale 270,000

Inventory June 30 (10,000 units X $9) 90,000

Variable cost of goods sold 180,000

Variable selling and administrative expenses (20,000 units X $2) 40,000

Total variable expenses 220,000

Contribution margin 180,000

Fixed expenses
Manufacturing overhead 120,000

Selling and administrative expenses 15,000

Total fixed expenses 135,000

Income from operations $45,000

Note that the $40,000 difference in operating income ($85,000 - $45,000) is the difference between the two ending inventory values ($130,000 - $90,000). Under the absorption costing, $40,000 of fixed overhead costs (10,000 units X $4) have been deferred to a future period as a product cost. In contrast, under the variable costing the entire fixed manufacturing costs are expensed when incurred.

As indicated in the income statements, when units produced exceed units sold, income under absorption costing is higher, when units produced are less than units sold, income under absorption costing is lower. The reason is that the cost of the ending inventory will be higher under absorption costing than under variable costing. The following chart summarizes the effects of the differences between units produced and units sold on the income under the two costing approaches:

<table>
<thead>
<tr>
<th>Situation</th>
<th>Income under Absorption costing</th>
<th>Income under Variable costing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units produced = Units sold ==&gt; Income = Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units produced &gt; Units sold ==&gt; Income &gt; Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units produced &lt; Units sold ==&gt; Income &lt; Income</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IV. ACTIVITY - BASED COSTING

Activity-based costing (ABC) is a cost accounting system that focuses on the activities performed in manufacturing a specific product.

An ABC system similar to conventional costing systems in accounting for direct materials and direct labor, but it differs in regard to manufacturing overhead.

In a conventional costing system, a single unit-level basis is used to allocate overhead costs to products. In ABC system, more than one basis of allocating activity costs to products is needed.

In selecting the allocation basis, ABC seeks to identify the cost drivers that measure the activities performed on the product. A cost driver may be any factor that has a direct cause-effect relationship with the resources consumed. Following are examples of activities and possible cost drivers:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering raw materials</td>
<td>Ordering hours; number of orders</td>
</tr>
<tr>
<td>Receiving raw materials</td>
<td>Receiving hours; number of shipments</td>
</tr>
<tr>
<td>Factory supervision</td>
<td>Number of employees</td>
</tr>
</tbody>
</table>

Two important assumptions must be met in order to obtain accurate product costs under ABC:

1. All overhead costs related to the activity must be driven by the cost driver used to assign costs to products.
2. All overhead costs related to the activity should respond proportionally to changes in the activity level of the cost driver.

To illustrate the ABC costing, assume that Kodak Co. produces two products, product A and product B. Product A is a high-volume item totaling 25,000 units annually. Product B is a low-volume item totaling only 5,000 units annually. Both products require one hour of direct labor for completion. Therefore, total direct labor hours are 30,000. Expected annual manufacturing overhead costs are $900,000. The overhead rate is $30 ( $900,000 /30,000) per direct labor hour.

The direct materials cost per unit is $40 for product A and $30 for product B.

The direct labor cost is $12 per unit for each product. Required:

what is the unit cost under the traditional costing system and under ABC costing system;

1- Unit costs under traditional costing

<table>
<thead>
<tr>
<th>Product</th>
<th>Manufacturing costs</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct materials</td>
<td>$40</td>
<td>$30</td>
<td></td>
</tr>
<tr>
<td>Direct labor</td>
<td>12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Overhead</td>
<td>30</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Total unit cost</td>
<td>$82</td>
<td>$72</td>
<td></td>
</tr>
</tbody>
</table>

2- Unit costs under ABC costing
a. Determining overhead rates under ABC

Analysis reveals that Kodak Co. expected annual overhead costs of $900,000 relate to three activities - machine setups, machining, and inspections. The cost driver and overhead rate for each activity are shown below:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost driver</th>
<th>Total expected overhead cost</th>
<th>Total expected use of driver</th>
<th>Overhead rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine setups</td>
<td>Number of setups</td>
<td>$300,000</td>
<td>1,500</td>
<td>$200</td>
</tr>
<tr>
<td>Machining</td>
<td>Machine hours</td>
<td>500,000</td>
<td>50,000</td>
<td>10</td>
</tr>
<tr>
<td>Inspections</td>
<td>Number of inspections</td>
<td>100,000</td>
<td>2,000</td>
<td>50</td>
</tr>
</tbody>
</table>

b. Assigning overhead costs to products under ABC

Because of its low volume, product B requires more setups and inspections than product A. The expected number of cost drivers for each product is:

<table>
<thead>
<tr>
<th>Product</th>
<th>Cost driver</th>
<th>A</th>
<th>B</th>
<th>Total usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of setups</td>
<td>500</td>
<td>1,000</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Machine hours</td>
<td>30,000</td>
<td>20,000</td>
<td>50,000</td>
<td></td>
</tr>
<tr>
<td>Number of inspections</td>
<td>500</td>
<td>1,500</td>
<td>2,000</td>
<td></td>
</tr>
</tbody>
</table>

Using these data, the assignment of the expected annual overhead cost to each product is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number</th>
<th>Cost</th>
<th>Number</th>
<th>Cost</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine setups</td>
<td>500</td>
<td>$100,000</td>
<td>1,000</td>
<td>$200,000</td>
<td>$300,000</td>
</tr>
<tr>
<td>Machining</td>
<td>30,000</td>
<td>300,000</td>
<td>20,000</td>
<td>200,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Inspections</td>
<td>500</td>
<td>25,000</td>
<td>1,500</td>
<td>75,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Total assigned costs (a)</td>
<td>1425,000</td>
<td>$475,000</td>
<td>$900,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units produced (b)</td>
<td>25,000</td>
<td>5,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead cost per unit [(a)/(b)]</td>
<td>$17</td>
<td>$95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These data shows that under ABC, overhead costs are shifted from the high-volume product (product A) to the low-volume product (product B). This shift results in more accurate costing for two reasons:

1. Low-volume products often require special handling, such as more machine setups and inspections, than high-volume products. Thus, the low-volume product frequently is responsible for more overhead costs per unit than a high-volume product.
2. The overhead costs incurred by the low-volume product often are disproportionate to a traditional allocation base. For example, direct labor hours is usually a poor cost driver for assigning overhead costs to low-volume products. When overhead is properly assigned in ABC, it will increase the unit cost of low-volume products.

c. Computing and comparing unit costs

<table>
<thead>
<tr>
<th></th>
<th>Traditional costing</th>
<th>ABC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Product</td>
<td>A</td>
</tr>
<tr>
<td>Manufacturing costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct materials</td>
<td>$40</td>
<td>$30</td>
</tr>
<tr>
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</tr>
<tr>
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<td>30</td>
</tr>
<tr>
<td>Total unit cost</td>
<td>$82</td>
<td>$72</td>
</tr>
</tbody>
</table>

As a summary, ABC involves the following steps:
1. Identify the major activities that pertain to the manufacture of specific products.
2. Accumulate manufacturing overhead costs by activities.
3. Identify the cost driver(s) that accurately measure(s) each activity's contribution to the finished product.
4. Assign manufacturing overhead costs for each activity to products, using the cost driver(s).

**Benefits of activity-based costing**

1) Control over overhead costs is enhanced. Since many overhead costs are incurred directly by activities, ABC helps managers to become aware of their responsibilities to control the activities that generate the costs.
2) Better management decisions can be made. More accurate product costing should contribute to setting selling prices that will achieve desired profitability levels.

**Limitations of activity-based costing**

1) The costs of obtaining the cost data required by the system is relatively high, since ABC requires data that are not normally generated within a company.
2) Many computations are involved in assigning overhead costs to individual products.

### Dictionary

<table>
<thead>
<tr>
<th></th>
<th>Arabic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>تحديد المزيج السلعى</td>
<td>Determining product mix</td>
</tr>
<tr>
<td>2</td>
<td>إمكانيات (مرافق) الإنتاج</td>
<td>Production facilities</td>
</tr>
<tr>
<td>3</td>
<td>العلاقات المتداخلة</td>
<td>Interrelationships</td>
</tr>
<tr>
<td>4</td>
<td>سلوك</td>
<td>Behavior</td>
</tr>
<tr>
<td>5</td>
<td>نبغي ثابتة</td>
<td>Remain constant</td>
</tr>
<tr>
<td>Number</td>
<td>Arabic</td>
<td>English</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>6.</td>
<td>نقطة تعادل الإيرادات والتكلفة</td>
<td>Break — even point</td>
</tr>
<tr>
<td>7.</td>
<td>الربح الحدي</td>
<td>Contribution margin</td>
</tr>
<tr>
<td>8.</td>
<td>الهدف</td>
<td>Target</td>
</tr>
<tr>
<td>9.</td>
<td>المعادلة</td>
<td>Equation</td>
</tr>
<tr>
<td>10-</td>
<td>البيئة — الوسط</td>
<td>Environment</td>
</tr>
<tr>
<td>11-</td>
<td>منافس</td>
<td>Competitor</td>
</tr>
<tr>
<td>12.</td>
<td>مؤتمتة</td>
<td>Automated</td>
</tr>
<tr>
<td>13.</td>
<td>نظام التكاليف المتغيرة</td>
<td>Variable costing</td>
</tr>
<tr>
<td>14-</td>
<td>نظام التكاليف الثابتة</td>
<td>Absorption costing</td>
</tr>
<tr>
<td>15.</td>
<td>نظام التكاليف المعتمد على الأنشطة</td>
<td>Activity - based costing</td>
</tr>
<tr>
<td>16.</td>
<td>يبحث عن، يسعى لـ</td>
<td>Seek</td>
</tr>
<tr>
<td>17.</td>
<td>يحدد — يوجد</td>
<td>Identify</td>
</tr>
<tr>
<td>18.</td>
<td>فحص</td>
<td>Inspection</td>
</tr>
<tr>
<td>19.</td>
<td>بشكل متكرر</td>
<td>Frequently</td>
</tr>
</tbody>
</table>

**OVERVIEW OF THE AUDIT PROCESS**

Decision criteria

1. Decision to accept new client
   1. independence
   2- Competency
   Predecessor auditor

2. Document Engagement Understanding

Engagement letter

3. Plan Audit

1. Obtain information on:
   a. Management
   b. Industry
   c. Regulation
   d. Economy

2. perform analytical procedures

3. Initial understanding of internal control

4. Audit program
   a. preliminary based upon 1-3 and planned level of reliance on internal control
   b. Detail nature, timing and extent of tests

4. Consider Internal Controls (compliance tests — tests of controls)

```
Outcomes
Modify the planned level of reliance
Confirm the planned level of reliance
```
II. AUDIT TESTS
Definition: Audit tests are procedures that an auditor applies to obtain evidence concerning the assertions underlying the financial statements under audit.

A. Nature of assertions
Assertions are representations by management that are embodied in financial statements components. They can be either explicit or implicit and can be classified as follows:
1. Existence or occurrence: deals with whether assets or liabilities of the entity exist at a given date and whether recorded transactions have occurred during a given period (i.e., all transactions are valid).
2. Completeness: deals with whether all transactions and accounts that should be presented in the financial statements are so included (i.e., no transactions were omitted).
3. Rights and obligations: deals with whether assets are the rights of the entity (i.e., ownership) and liabilities are the obligations of the entity at a given time.
4. Valuation and allocation: deals with whether asset, liability, revenue, and expense components have been included in the financial statements at appropriate amounts (proper dollar values and proper time period).
5. Presentation and disclosure: deals with whether particular components of the financial statements are properly classified, described, and disclosed.

B. Purpose of test:
1. Tests of controls: tests developed to evaluate the effectiveness of the design and operations of internal controls.
2. Substantive tests: tests developed to detect material misstatements in financial statement assertions.

**Examples of major audit tests and their classifications:**

<table>
<thead>
<tr>
<th>Type of test</th>
<th>Purpose of test</th>
<th>Substantive tests</th>
<th>Tests of controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical procedures</td>
<td></td>
<td>Yes, 1</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Inquiry and observation</td>
<td></td>
<td>Yes, 7</td>
<td>Yes, 23, 8</td>
</tr>
<tr>
<td>Tests of transaction</td>
<td></td>
<td>Yes, 4</td>
<td>Yes, 5</td>
</tr>
<tr>
<td>Tests of balances*</td>
<td></td>
<td>Yes, 6, 7</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**Examples:**
1. Comparison of this year's payroll with last year's expenses.
2. Observation by the auditor that the clerk who initiates checks is different from that who records in the books of account.
3. Inquiry by the auditor about who initiates checks and when.
4. Examination of invoices to support additions to fixed assets account during the year.
5. Examine credit sales invoices to assure the existence of the credit manager approval.
6. Confirmation of accounts receivables at year end.
7. Observation of the securities in the treasury.
8. Extended walk-through of an internal control procedure.

**III. TYPES OF AUDIT REPORTS**

1. **Standard Audit report**

   Independent Auditors Report

   To the Board of Directors and/or Stockholders of MQ Company

   We have audited the accompanying balance sheet of MQ Company as of (at) December 31, 2002, and the related statements of income, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

   We conducted our audit in accordance with the generally accepted auditing standards in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant
estimates made by management, as well as evaluating the, overall financial statement presentation-
We believe that our audit provides a reasonable basis for our opinion.
In our opinion, the financial statements referred to above present fairly, in all material respects, the
financial position of MQ Company as of ( at ) December 31,2002, and the results of its operations
and its cash flows for the year then ended in conformity with accounting principles generally
accepted in the United States of America.
Audit Firm signature
Report date ( the last day of field work [must coincide with the date on client representation letter]).
Notes:
1. The auditors standard report consists three paragraphs:
a- The first paragraph is called the "introductory paragraph".
b. The second paragraph is called the "scope paragraph".
c. The third paragraph is called the "opinion paragraph".
2- The auditor is required to add an "explanatory paragraph" in the following circumstances without
changing his standard unqualified report
a- The opinion is based in part on the report of another auditor,
b. The financial statements contain a departure from GAAP necessary to prevent them from being
misleading,
c. The auditor changes the opinion on a prior period when reporting on current statements in
comparative form,
d. The auditor has a substantial doubt about the entities ability to continue as a going concern
e- The auditor wishes to emphasize a matter " such as contingencies-outcome of lawsuit".

Example:
The accompanying financial] statements have been prepared assuming that the company will
continue as a going concern. As discussed in Note X to the financial statements. Company MQ has
suffered recurring losses from operations and has a net capital deficiency that arises substantial
doubt about the entity's ability to continue as a going concern. Management's plans in regard to
these matters are also described in Note X. The financial statements do not include any adjustments
that may result from the outcome of this uncertainty.
This additional paragraph does not constitute a qualified opinion but rather it is regarded as an
emphasis paragraph.
2. Qualified " except for " opinion:
Qualified opinion is used when the financial statements , taken as a whole, present fairly..., but there
are material errors in the financial statements that the user should be concerned with. In such a case
, the auditor report might be as follows.
Standard introductory paragraph.
The Company has excluded from property and debt in the accompanying balance sheet certain lease obligations, which, in our opinion, should be capitalized in order to conform with generally accepted accounting principles. If these lease obligations were capitalized, property would be increased by $....., long term debt by $...... and retained earnings by $ ..... as of December 31,2002, and net income and earnings per share would be increased (decreased) by $ ... and $ ... respectively for the year then ended.

In our opinion, except for the effects of not capitalizing lease obligations, as discussed in the preceding paragraph, the financial statements referred to above present fairly, in all material respects, the financial position of MQ Company as of (at ) December 31,2002. and She results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

3. Adverse opinion:
An adverse opinion is expressed when the financial statements as a whole are not presented fairly in conformity with GAAP. hi other words, the financial statements as a whole are misleading and not reliable- In such a case, the auditor report might be as follows:

Standard introductory paragraph.
Standard scope paragraph.
(Explanatory paragraph as above)
(Very material departure from GAAP)
option paragraph
" in our opinion, because of the failure to capitalize lease obligations, as discussed in the preceding paragraph, the financial statements referred to above do not present fairly......

4. Disclaimer of opinion
A disclaimer of opinion is expressed when the audit has not been sufficient in scope to permit the formation of an opinion- In such a case, the auditor report might be as follows:
We were engaged to audit the accompanying balance sheet of MQ Company as of ( at ) December 1,2003, and the related statements of income, retained earnings, and cash follows for the year then ended. These financial statements are the responsibility of the Company's management.
Scope paragraph should be eliminated.
The Company aid not make a physical count of its inventory in 2002, stated in the accompanying financial statements at $ ..... as a/December 31,2002. furthermore, evidence supporting the cost of the equipments acquired prior to December 31,2002, is not available. The Company's records do not permit the application of other auditing procedures to inventories or equipment.
Since the Company did not take physical inventories and we were not able to apply alternative audit
procedures to satisfy ourselves as to inventory quantifies and/he cost of the equipment, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on the accompanying financial statements.

**Summary of auditors reports**

<table>
<thead>
<tr>
<th>Circumstances</th>
<th>Type of opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unqualified</td>
</tr>
<tr>
<td>1. Departure front GAAP</td>
<td></td>
</tr>
<tr>
<td>2. Inadequate disclosure</td>
<td></td>
</tr>
<tr>
<td>3. Uncertainty</td>
<td>X</td>
</tr>
<tr>
<td>a. Adequately disclosed</td>
<td></td>
</tr>
<tr>
<td>b. Not adequately disclosed</td>
<td>X</td>
</tr>
<tr>
<td>4. Going concern</td>
<td></td>
</tr>
<tr>
<td>a. Adequately disclosed</td>
<td>X</td>
</tr>
<tr>
<td>b. Not adequately disclosed</td>
<td></td>
</tr>
<tr>
<td>5. Scope limitation</td>
<td>X</td>
</tr>
<tr>
<td>6. Auditor lacks independence</td>
<td></td>
</tr>
<tr>
<td>7. Change in GAAP (consistency)</td>
<td></td>
</tr>
<tr>
<td>a. Newly adopted principle NOT GAAP</td>
<td></td>
</tr>
<tr>
<td>b. Adequate justification of change</td>
<td>X</td>
</tr>
<tr>
<td>c. No adequate justification of change</td>
<td></td>
</tr>
<tr>
<td>8. Using the work of other auditors</td>
<td></td>
</tr>
<tr>
<td>a. No reference in consolidated audit report</td>
<td>X</td>
</tr>
<tr>
<td>b. Reference in consolidated audit report</td>
<td>X</td>
</tr>
<tr>
<td>c. Other auditor refers to a departure</td>
<td></td>
</tr>
<tr>
<td>from GAAP in separate report</td>
<td>X</td>
</tr>
<tr>
<td>1) Not material to consolidated Financial</td>
<td></td>
</tr>
<tr>
<td>statements presentation</td>
<td></td>
</tr>
<tr>
<td>2) Material to consolidated financial</td>
<td></td>
</tr>
<tr>
<td>Statements presentation</td>
<td></td>
</tr>
</tbody>
</table>

**V. COMPILATION AND REVIEW REPORTS**

1. **DEFINITIONS**

A Compilation is the presentation of financial information that is the representation of management in the form of financial statements, without expressing any assurance on the statements.

**Compilation Report**

To the (addressee)
I (we) have compiled the accompanying balance sheet of XYZ Company as of December 31, 2003, and the related statements of income, retained earnings, and cash flow for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting in the form of financial statements information that is the representation of management (owners). I (we) have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

**Procedures to be followed**

1. The accountant should have a level of knowledge of the accounting principles and practices of the industry in which the entity operates.

2. The accountant should obtain an understanding of the nature of the entity's business transactions, the form of accounting records, the qualifications of accounting personnel, and the form and content of the financial statements.

3. The accountant is not required to make inquiries or perform other procedures. However, the accountant is obligated to do so if it had come to his attention that the information submitted to him is incomplete, in error, or unsatisfactory.

Note: each page of the statements should include a reference such as "See Accountants Compilation Report".