Accounting Studies in English

1^{st} year (English Section)

Collections

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Contents

Chapter (1)

Major Forms OF

Business Organizations

Introduction:

Business utilizes different forms of business ownership in their efforts to satisfy the needs of people. The three most popular forms of business ownership are the sole proprietorship, the partnership, and the corporation.

The Sole Proprietorship:

Sole proprietorships are usually small in size and are most common in areas of farming, and retail trades.

A sole proprietorship is a business owned and managed by one person. That person, however, may have help from others in running the business.

Advantages of a Sole Proprietorship:

1- **Simple and easy to organize**: the only requirement for organization is that the business is legal and holds a license to operate if one is required.

2- Permits free and prompt action: the proprietor is his own boss and makes his own decisions. He is both manager and operator, and the success or failure of the firm depends entirely on him.

3- Provides maximum incentive for hard work: the proprietor gets all profits and can make his own decisions carefully as to operation and expansion.

4- Provides a confidential method of operation: trade secrets generally will not be revealed.

5- Provides a confidential of doing business: methods of doing business can be altered quickly to meet changes in competition, consumer habits, and economic conditions.

Disadvantages:

1- Limited Capital: the amount of capital is limited both for organizational investment and for expansion. The proprietor is the only person who can provide money for those purposes. He cannot share this responsibility and usually reinvestment of profit is insufficient.

2- Limited Life: the life of the sole proprietorship is limited. Death or incapacity of proprietor by insanity, imprisonment, or bankruptcy terminates the business. This condition also makes it different to get long-term business commitments profitable to the business.

3- Unlimited Liability: unlimited liability means that a proprietor is liable for claims against the business that go beyond the value of his or her ownership in the firm. The liability extends to his or her personal property furniture, car, and personal saving and real estate property (home and other real estate). This unlimited liability exists because there is no legal distinction between the sole and the sole proprietor's business.

4- Operational Difficulties: since one person controls all operations and makes all decisions, he may lack some special abilities needed for the most effective operation of the business. Also, poor location inadequate buildings and equipment, and law wages may tend not to attract the most productive and ambitious employees. The limited volume of business because of size also tends to result in limited purchase volume and higher costs.

The Partnership:

The partnership form of ownership came about to overcome some of the disadvantages of the proprietorship. A partnership is an association of two or more persons to carry on a business for profit. Suck an association is usually based on a written agreement.

Advantages of a Partnership:

1- **Multiple sources of available capital:** because the partnership has more than one owner the possibilities for raising capital are greater than they are for the sole proprietorship. Also, ending institutions are more willing to lend money where two or more persons responsible for the payment of borrowed funds, for the same reason, other businesses will usually furnish larger quantities raw materials supplies when two or more individuals are liable for payment.

2- **Combined judgment and diversified management skills:** in a partnership the two or more owners combine their skills and knowledge. For example one partner might be able to furnish ideas for the products or services the firm is to produce. Another might have the ability to super vise employees. Still another might have financial and accounting background. A fourth might have the sales experience to market the firm's products.

3- **Possibilities for growth and expansion**: because of the greater ease of securing capital for the business; a partnership can expand more easily than a sole proprietorship. If the business needs additional capital to expand its line of products or services, more than on owner can be called on to raise necessary capital. Multiple owners can also supervise more employees and large facilities more easily than a single owner can.

4- Personal interest in business: since each partner is liable for his or her actions and the actions of the other partners, all are very concerned in every move made by the business. Such situation results in enhancing the partners sense of responsibility and their personal interest compared to the corporation, this advantage may be very important in the success of the firm. Only in the sole proprietorship, where little or no opportunity exists to share or delegate responsibility, does the personal interest factor have greater weight.

Disadvantages of a Partnership:

1- Unlimited liability of the partner: the greatest disadvantage is that of unlimited liabilities of the partners. Each partner is liable personally for the partnership debt if one partner makes unwise commitment, even against the wishes of the other partners. All the partners may be liable for the loss that results.

2- **Limited Life**: if a partner dies or withdraws from the business, the partnership is dissolved. Also, if a partner becomes mentally impaired the business is terminated. The more persons there are in a partnership the greater are the chances that this will occur.

3- **Managerial difficulties:** although, better decisions usually result from the combined judgments of two or more partners. Such divided control can also cause trouble.

4- Frozen investment: for an individual who wishes to invest some money in a business the partnership from may prove to be a poor choice from the viewpoint of liquidity and transferability. It is well known that and difficult to in a partnership that it is easy to the invested in a partnership and difficult to withdraw the invested funds.

5- Limitation of size: the disadvantage held by partnership over a sole proprietorship as to availability of capital can easily become a disadvantage when contrasted with a corporation. Some businesses such as those producing steel or making automobiles require the investment of millions of dollars and founds by several the owners. Even if composed of several wealthy individual partners would have great difficulty in raising adequate capital for organizing successful firm in many lines of business.

The define Limited Partnership:

Whenever the word partnership appears by itself, the reference is always to general partnership, that is, one is which all partner have unlimited liability. By contrast a limited partnership is an ownership from in which one or several partner can be limited liability as long at least one partner has unlimited liability.

Limited Partners:

Cannot be active nor appear to be active in the management of the firm, their names can be used in the names of the partnership. The purpose of a used in the names of the purpose of a limited partnership to allow one or more individuals to provide capital, which a return is expected, without assuming liability for debts beyond the amount or amounts invested.

Corporation:

A business may need more capital than can be provided by a sole proprietorship or by two more partners. The capital required may be several millions of pounds or dollars. The only way that such huge sums can assembled is to form a corporation.

A corporation an artificial being or a legal entity, separate from its owners that has the right to conduct business in its own name.

The ownership of the corporation is divided among thousands of investors through shares or stocks. Thus, the owner called stockholders or shareholders. The shareholders elect a board of directors elects through a voting process (usually one share one vote). The board of directors the high ranking corporate officers, such as president, vice president, secretary, and treasurer. These officers are responsible for the day-by-day operation of the corporation and report periodically to the board of directors.

Advantages of a Corporation:

1- **Limited Liability of Stockholders:** the corporate form of business organization offers the owners the advantage of limited liability, which means that each stockholder risks only in the amount invested in the corporation. If the company proves unpromtable and fails, creditors cannot book beyond the assets of the corporation for funds to settle their claims. Since a corporation is a separate entity, it owes the debts in the place of the owners.

2- **Large Size:** the corporation by dividing its ownership into shares of small denomination, can attract capital from thousands of individuals. If it is necessary to secure capital amounting the million dollars or pounds to in order to orgaris a firm, a corporation is the only feasible from of ownership can be used.

3- Transfer of Ownership: ownership evidences by stock certificates gives maximum ease of transfer. If Ahmed wants to sell his shares in the corporation, he merely endorses his stock certificates and this change of ownership is recorded in the books of the corporation. As a general rule, corporations allow their stockholders to transfer ownership to anyone at any time. This transfer may take place in the organized stock exchanges.

4- Length of Life: the corporation is potentially a permanent enterprise. The death or incapacity of stockholders, officers, and employee usually has little bearing on the continued existence of the business.

5- **Efficiency of Management:** the corporate structure permits delegation of authority by the stockholders to the board of directors by it to the administrative officials. Corporation frequently seek and source the services of outstanding individuals on their board hires the executives top and if those individuals do not perform efficiently, they can be replaced.

6- **Ease of Expansion:** the corporation has almost an unlimited opportunity for expansion as long as investors are willing to purchase additional shares of stock. For there more large corporations find it easy to borrow substantial sums of money by issuing bonds.

Disadvantages of a Corporation:

1- **High Organization Expenses:** of all the various forms of business enterprise, corporations are the most expensive to organize.

2- **Lack of Personal Interest**: a corporation has an identity of its own. All who work, for a corporation, therefore, assume the role of employees' relationship sometimes results in personal interest in the success or failure of the organization unless the employee is also stockholder.

3- **Lack of Secrecy:** a corporation must make an annual report to the stockholders. These reports include all the financial data about the company. Other corporations, sometimes keen rivals, have an opportunity to examine and make use of these data.

Questions:

(1) True or False:

Indicate whether each of the following statements is true (T) or false (F). If the statement is false explain why.

1- A partnership may be owned by a single individual.

2- Unlimited liability is advantage of the proprietorship.

3- Managerial flexibility is an advantage of a sole the proprietorship.

4- Conflict of authority and control disadvantages are of the partnership.

5- Limited partners generally have managerial rights.

6- Lack of continuity (limited life) is a disadvantage of the partnership.

7- Difficulty in raising capital is a limitation of the sole proprietorship.

8- A corporation is an artificial being with the right to conduct its own affairs.

9- A corporate owners are known as partner.

10- In a corporation, major policies are set by the board of directors.

11- Ease of expansion is an advantage of the corporation.

12- Shareholders vote directory for officers.

13- It is not necessary to have any general partner in the limited partnership.

Multiple Choices:

Select the best answer (a, b, c, or d) for each of the following statements:

1- Which of the following is not a major form of business ownership:

A- Partnership.

B- Managership.

C- Sole proprietorship.

D- Corporation.

2- If you want to invent some money in a business and you do not want your liability to extend to your personal or real estate property, the best form of business to invest in should be:

A- The Partnership.

B- The Sole proprietorship.

C- The Corporation.

3- Which of the following investors has a limited liability

A- The general partner.

B- Stock holder

C- The limited partner.

D- Both b and c

4- The most appropriate business form to undertake a steel and iron factory is

A- Partnership.

B- a limited partnership.

C- a Sole proprietorship.

D- a Corporation.

5- The business form which provides the easiest transfer of ownership is:

A- The limited partnership.

B- The Sole proprietorship.

C- The Corporation.

6- Usually, the largest number of ownership in found is:

A- The general partnership

B- The limited partnership.

C-The Sole proprietorship.

D- The Corporation.

7- The separation of the ownership from management is most likely to be found in:

A- The general partnership

B- The unlimited partnership.

C-The Sole proprietorship.

D- The Corporation.

8- Relatively speaking, the business form which has the greatest potentiality for per menace is:

A- The partnership

B- The limited partnership.

C-The Sole proprietorship.

D- The Corporation.

9- The form of business with the greatest ability to expand is:

A- The partnership

B- The limited partnership.

C- The Sole proprietorship.

D- The Corporation.

10- The greatest disadvantage to the partnership is:

A- The unlimited liability of the partners.

B- The limited life of the company.

C- The frozen investment.

D- The limitation of size.

Chapter (2)

Long-lived Assets

Capital Assets

Long-lived or capital assets are used in the normal operating activities of the business and are expected to provide benefits for a period in excess of one year. Long-lived assets covered in this chapter consist of three types: (a) property, plant, and equipment (PPE); (b) intangible assets. Also discussed are depreciation and amortization, techniques to allocate the cost of most capital assets over their estimated useful lives.

Establishing the Cost of Property, Plant, and Equipment (PPE)

Property, plant, and equipment (PPE) are long-lived assets that are acquired for the purpose of generating revenue either directly or indirectly. They are held for use in the production or supply of goods and services, have been acquired for use on a continuing basis, and are not intended for sale in the ordinary course of business. Examples of PPE assets include land, office and manufacturing buildings, production machinery, trucks, ships or aircraft used to deliver goods or transport passengers, salespersons' automobiles owned by a company, or a farmer's production machinery such as tractors and field equipment. PPE assets are tangible assets because they can be physically touched. There are other types of non-current assets that are intangible— existing only as legal concepts—such as copyrights and patents. These will be discussed later in this chapter.

A long-term asset can be considered a bundle of future benefits that will be used up over a period of years. Each year, a pre-determined portion of these benefits is allocated to expense on the income statement.

Capital Expenditures

Any cash disbursement is referred to as an expenditure. A capital expenditure results in the acquisition of a non-current asset, including any additional costs involved in preparing the asset for its intended use.

To demonstrate, assume that equipment is purchased for $20,000. Additional costs include transportation costs $500, installation costs $1,000, construction costs for a cement foundation $2,500, and test run(s) costs to debug the equipment $2,000. The total capitalized cost of the asset to put it into use is $26,000.

Determining whether an outlay is a capital expenditure or a revenue expenditure is a matter of judgment. A revenue expenditure does not have a future benefit beyond one year. The concept of materiality enters into the distinction between capital and revenue expenditures. As a matter of expediency, an expenditure of $20 that has all the characteristics of a capital expenditure would probably be expensed rather than capitalized, because the time and effort required by accounting staff to capitalize and then depreciate the item over its estimated useful life is much greater than the benefits derived from doing so. Capitalization policies are established by many companies to resolve the problem of distinguishing between capital and revenue expenditures. For example, one company's capitalization policy may state that all capital expenditures equal to or greater than $1,000 will capitalized, while all capital expenditures under $1,000 will be expensed when incurred. Another company may have a capitalization policy limit of $500.

Not all asset-related expenditures incurred after the purchase of an asset are capitalized. An expenditure made to maintain PPE in satisfactory working order is a revenue expenditure and recorded as a debit to an expense account. Examples of these expenditures include: (a) the cost of replacing small parts of an asset that normally wear out (in the case of a truck, for example: new tires, new muffler, new battery); (b) continuing expenditures for maintaining the asset in good working order (for example, oil changes, antifreeze, transmission fluid changes); and (c) costs of renewing structural parts of an asset (for example, repairs of collision damage, repair or replacement of rusted parts).

Although some expenditures for repair and maintenance may benefit more than one accounting period, they may not be material in amount or they may have uncertain future benefits. They are therefore treated as expenses. These three criteria must all be met for an expenditure to be considered capital in nature.

1. Will it benefit more than one accounting period?

2. Will it enhance the service potential of the asset, or make it more valuable or more adaptable?

3. Is the dollar amount material?

If the expenditure does not meet all three criteria, then it is a revenue expenditure and is expensed.

Land

The purchase of land is a capital expenditure when the land is used in the operation of a business. In addition to the costs listed in the schedule above, the cost of land should be increased by the cost of removing any unwanted structures on it. This cost is reduced by the proceeds, if any, obtained from the sale of the scrap. For example, assume that the purchase price of land is $100,000 before an additional $15,000 cost to raze an old building: $1,000 is expected to be received for salvaged materials. The cost of the land is calculated as $114,000 ($100,000 + $15,000 - $1,000).

Frequently, land and useful buildings are purchased for a lump sum. That is, one price is negotiated for their entire purchase. A lump sum purchase price must be apportioned between the PPE assets acquired on the basis of their respective market values, perhaps established by a municipal assessment or a professional land appraiser. Assume that a lump sum of $150,000 cash is paid for land and a building, and that the land is appraised at 25% of the total purchase price. The Land account would be debited for $37,500 ($150,000 x 25%) and the Building account would be debited for the remaining 75% or $112,500

($150,000 x 75% = $112,500 or $150,000 - $37,500 = $112,500) as shown in the following journal entry.

	Dr	Cr
Land	37500	
Building	112500	
Cash		15000
To record the purchase of land and building for a lump sum of $150,000; land: $150,000 x 25% = $37,500; building: $150,000 x 75% = $112,500.		

Building and Equipment

When a capital asset is purchased, its cost includes the purchase price plus all costs to prepare the asset for its intended use. However, a company may construct its own building or equipment. In the case of a building, for example, costs include those incurred for excavation, building permits, insurance and property taxes during construction, engineering fees, the cost of labour incurred by having company employees supervize and work on the construction of the building, and the cost of any interest incurred to finance the construction during the construction period.

Depreciation

The role of depreciation is to allocate the cost of a PPE asset (except land) over the accounting periods expected to receive benefits from its use. Depreciation begins when the asset is in the location and condition necessary for it to be put to use. Depreciation continues even if the asset becomes idle or is retired from use, unless it is fully depreciated. Land is not depreciated, as it is assumed to have an unlimited life.

Depreciation is an application of the matching principle.

According to generally accepted accounting principles, a company should select a method of depreciation that represents the way in which the asset's future economic benefits are estimated to be used up.

There are many different ways to calculate depreciation. The most frequently used methods are usage-based and time-based. Regardless of depreciation method, there are three factors necessary to calculate depreciation:

- cost of the asset
- residual value
- estimated useful life or productive output.

Residual value is the estimated worth of the asset at the end of its estimated useful life.

A long-lived asset is not depreciated below its residual value.

Useful life is the length of time that a long-lived asset is estimated to be of benefit to the current owner. This is not necessarily the same as the asset's economic life. If a company has a policy of replacing its delivery truck every two years, its useful life is two years even though it may be used by the next owner for several more years.

Productive output is the amount of goods or services expected to be provided. For example, it may be measured in units of output, hours used, or kilometres driven.

Usage-Based Depreciation Method - Units-of-Production

Usage-based depreciation methods, such as the units-of-production method, are used when the output of an asset varies from period to period.

Usage methods assume that the asset will contribute to the earning of revenues in relation to the amount of output during the accounting period. Therefore, the depreciation expense will vary from year to year.

To demonstrate, assume that Big Dog Carworks Corp. purchased a $20,000 piece of equipment on January 1, 2019 with a $2,000 residual value and estimated productive life of 10,000 units. If 1,500 units were produced during 2019, the depreciation expense for the year ended December 31, 2019 would be calculated using the following formula:

$$= \frac{\text{Cost} - \text{Resdual value}}{\text{Estimated units output}}$$

= Depreciation per unit x Number of units produced = Depreciation expense

$$= \frac{\$20000 - 2000}{10000 \text{ units}}$$

= $1.80 per unit x 1,500 units

= $2,700

The following adjusting entry would be made on December 31, 2019:

	Dr	Cr
Depreciation Expense	2700	
Accumulated Depreciation		2700
To record depreciation expense using the units-of-production method; ($20,000 - $2,000)/10,000 units = $1.80/unit; $1.80/unit x 1,500 units = $2,700.		

The carrying amount or net book value of the asset is its cost less accumulated depreciation. On the December 31, 2019 balance sheet, the carrying amount would be $17,300 ($20,000 - 2,700).

Note that the residual value is only used to calculate depreciation expense. It is not recorded in the accounts of the company or included as part of the carrying amount on the balance sheet.

If 2,000 units were produced during 2020, depreciation expense for that year would be $3,600 ($1.80 per unit x 2,000 units). At December 31, 2020, the following adjusting entry would be recorded:

	Dr	Cr
Depreciation Expense	3600	
Accumulated Depreciation		3600
To record depreciation expense using the units-of-production method; ($20,000 - $2,000)/10,000 units = $1.80/unit; $1.80/unit x 2,000 units = $3,600.		

The carrying amount at December 31, 2020 would be $13,700 ($20,000 – 2,700 – 3,600). If the equipment produces 1,000 units in 2021, 2,500 units in 2022, and 3,000 units in 2023, depreciation expense and carrying amounts would be as follows each year:

(a) Year	(b) Carrying amount at start of year	(c) Usage (units)	(d) Rate*	(e) Dep expense	Carryin amount at end of year (b) - (e)
2019	$20,000				$17,300
2020	17,300	2,000	1.80	3,600	13,700
2021	13,700	1,000	1.80	1,800	11,900
2022	11,900	2,500	1.80	4,500	7,400
2023	7,400	3,000	1.80	5,400	2,000
		10,000		$18,000	

*($20,000 – 2,000)/10,000 units = $1.80 per unit

If the equipment produces exactly 10,000 units over its useful life and is then retired, depreciation expense over all years will total $18,000 (10,000 units x $1.80) and the carrying amount will equal residual value of $2,000 ($20,000 – 18,000).

It is unlikely that the equipment will produce exactly 10,000 units over its useful life. Assume instead that

4,800 units were produced in 2023. Depreciation expense and carrying amounts would be as follows each year:

(a) Year	(b) Carrying amount at start of year	(c) Usage (units)	(d) Rate	(e) Dep expense	Carrying amount at end of year (b)~(e)
2019	$20.000				$17.300
2020	17.300	2.000	1.80	3.600	13.700
2021	13.700	1.000	1.80	1.800	11.900
2022	11.900	2.500	1.80	4.500	7.400
2023	7,400	4,800	1.80	5400	2000
		11,800		18000	

Although the 2023 depreciation expense would otherwise be $8,640 (4,800 units x $1.80), only $5,400 is recorded to bring the carrying amount of the asset down to its residual value of $2,000.

Time-Based Depreciation Method - Straight-Line

This method assumes that the asset will contribute to the earning of revenues equally each time period. Therefore, equal amounts of depreciation are recorded during each year of the asset's useful life.

Straight-line depreciation is calculated as:

$$= \frac{\text{Cost} - \text{Resdual value}}{\text{Useful life}}$$

$$= Depreciation\ expense\ each\ period$$

To demonstrate, assume the same $20,000 piece of equipment used earlier, with a useful life of five years and a residual value of $2,000. Straight-line depreciation would be $3,600 per year calculated as:

$$= \frac{\$20000 - 2000}{5\text{years}}$$

=$3,600 depreciation expense each year

Over the five-year useful life of the equipment, depreciation expense and carrying amounts will be as follows:

(a)	(b)	(c)	(d)
Year	Carrying amount at start of year	Dep expense	Carrying amount at end of year (b) – (c)
2019	$20,000		$16,400
2020	16,400	3,600	12,800
2021	12,800	3,600	9,200
2022	9,200	3,600	5,600
2023	5,600	3,600	**2,000**
		$\boxed{\$18,000}$	

Under the straight-line method, depreciation expense for each accounting period remains the same dollar amount over the useful life of the asset.

Accelerated Time-Based Depreciation Method – Double-Declining Balance (DDB)

An accelerated depreciation method assumes that a capital asset will contribute more to the earning of revenues in the earlier stages of its useful life than in the later stages. This means that more depreciation is recorded in earlier years with the depreciation expense decreasing each year. This approach is most appropriate where assets experience a high degree of obsolescence (such as computers) or where the value of the asset is highest in the first years when it is new and efficient and declines significantly each year as it is used and becomes worn (such as mining equipment).

Under an accelerated depreciation method, depreciation expense decreases each year over the useful life of the asset.

One type of accelerated depreciation is the double-declining balance (DDB) method. To calculate, the percentage cost of the asset (100%) is divided by its estimated useful life, without regard to residual value. The resulting rate is doubled. The doubled rate is applied at the end of each year to the carrying amount of the asset.

For example, assume the same $20,000 equipment with an estimated useful life of five years. The straight-line rate is 20 per cent, calculated by dividing 100 per cent by five years, the useful life (100%/5 =

20%). This straight-line rate of 20% is then doubled to 40%.

Regardless of which depreciation method is used, a capital asset cannot be depreciated below its carrying amount, which in this case is $2,000. The DDB depreciation for the five years of the asset's useful life follows:

(a) Year	(b) Carrying amount at start of year	(c) DDB rate	(d) Dep expense (b) x (c)	Carryin amount at end of year (b)–(d)
2019	$20.000	40%		$12.00
2020	12.000	40%	4.800	7.200
2021	7.200	40%	2.880	4.320
2022	4,320	40%	1,728	2,592
2023	2,592	40%	592	2,000
			$18,000	

Although the 2023 depreciation expense would otherwise be $1,037 ($2,592 x 40%), only $592 is recorded to bring the carrying amount of the asset down to its residual value of $2,000.

Partial Year Depreciation

Assets may be purchased or sold at any time during a fiscal year. Should depreciation be calculated for a whole year in such a case? The answer depends on corporate accounting policy. There are many alternatives. One is to calculate depreciation to the nearest whole month. Another, often called the half-year rule, records half a year’s depreciation regardless of when a capital asset is purchased or sold during the year. The half-year rule is used in this textbook.

To demonstrate the half-year approach to calculating depreciation for partial periods, assume again that on

January 1, 2019 Big Dog Carworks Corp. purchases equipment for $20,000 with a useful life of five years and a residual value of $2,000. Recall that depreciation expense for 2019 was $3,600 using the straight-line method. Because of the half-year rule, depreciation expense for 2019 would be $1,800 ($3,600 x ½) even though the asset was purchased on the first day of the fiscal year. Using the double-declining balance method, depreciation expense for 2019 under the half-year rule would be $4,000 ($8,000 x ½). The half-year rule does not apply to the units-of-production depreciation method because the method is usage-based and not time-based. Presumably, usage would be less if the asset is purchased or sold partway through a year, so this depreciation method already takes this into account.

Revising Depreciation

Both the useful life and residual value of a depreciable asset are estimated at the time it is purchased. As time goes by, these estimates may change for a variety of reasons. In these cases, the depreciation expense is recalculated from the date of the change in the accounting estimate and applied going forward. No change is made to depreciation expense already recorded.

Consider the example of the equipment purchased for $20,000 on January 1, 2019, with an estimated useful life of five years and residual value of $2,000. If the straight-line depreciation method and the half-year rule are used, the depreciation expense is $1,800 in 2019 and $3,600 in 2020. The carrying amount at the end of 2020 is $14,600 ($20,000 – 1,800 – 3,600). Assume that on December 31, 2021, management estimates the remaining useful life of the equipment to be six years, and the residual value to be $5,000.

Depreciation expense for the remaining six years would be calculated as:

$$= \frac{\text{Remaining carring amount} - \text{Resdual value}}{\text{Remaning useful life}}$$

$$= \frac{(\$14600 - 5000)}{6 \text{ years}}$$

= $1,600 per year

Subsequent Capital Expenditures

As noted earlier, recurring expenditures that relate to day-to-day servicing of depreciable assets are not capitalized, but rather are expensed when incurred. Oil changes and new tires for vehicles are examples of recurring expenditures that are expensed. Expenditures that are material, can be reliably measured, and enhance the future economic benefit provided by the asset are added to the cost of the asset rather than being expensed when incurred. Subsequent capital expenditures can take two forms:

1. Additions (for example, adding new room in an existing building or regular inspection costs of a capital asset)

2. Replacement (for example, replacing the engine in a truck or putting new windows in a building).

Additions to existing depreciable assets affect future depreciation expense in the same manner as changes in accounting estimates discussed above. Recall our original example: Equipment is purchased on January 1, 2019 for $20,000. It has a useful life of five years and a residual value of $2,000. It is depreciated on the straight-line basis and using the half-year rule. Assume that a $5,000 device is added to the equipment on January 10, 2022 to reduce pollution emissions. Further, assume that the addition of the device will increase the residual value of the equipment to $3,000 but will not extend its useful life. The journal entry to record the addition is:

	Dr	Cr
Equipment Cash To record addition to equipment.	5000	 5000

The carrying amount of the equipment at December 31, 2022 prior to calculating depreciation expense is $16,000 ($20,000 – 1,800 – 3,600 – 3,600 + 5,000. Depreciation expense for 2022 and 2023 will be $6,500, calculated:

$$= \frac{\text{Remaining carring amount} - \text{Revised resdual value}}{\text{Remaning useful life}}$$

$$= \frac{\$16000 - 3000}{2\text{ years}}$$

= $6,500 per year

Note that the ½ year rule does not apply to additions to existing depreciable assets.

At the end of December 31, 2023, the carrying amount will equal the revised residual value of \$3,000 (\$20,000 – 1,800 – 3,600 – 3,600 + 5,000 – 6,500 – 6,500).

If the double-declining balance method of depreciation is used, the same calculation is performed as before. In our example, the 2022 carrying amount using the double-declining balance method and prior to the additional \$5,000 capital expenditure is \$4,320, as follows:

(a) Year	(b) Carrying amount at start of year	(c) DDB rate	(d) Dep expense (b) x (c)	Carrying amount at end of year (b) – (d)
2019	\$20,000	40%	\$8,000	\$12,000
2020	12,000	40%	4,800	7,200
2021	7,200	40%	2,880	4,320

Depreciation expense for the next two years will be as Follow:

(a)	(b)	(c)	(d)	(e)
Year	Carrying amount at start of year	DDB rate	Dep expense (b) x (c)	Carrying amount at end of year (b) – (d)
2022	$9,320	40%	$3,728	$5,592
2023	5,592	40%	2,237	**3,355**

The amount of $9320 is the $4,320 carrying amount at December 31, 2021 plus the $5,000 addition on January 10, 2022.

The carrying amount of the asset at the end of 2023 ($3,355) is still above its new residual value of $3,000, so full depreciation is claimed in 2023.

The accounting for a replacement part of a depreciable asset is more involved. The cost of the replaced item and its related accumulated depreciation must be removed from the accounting records when the replacement is capitalized. A gain or loss on disposal must be calculated. Let's demonstrate, again using our original examples: $20,000 equipment purchased on January 1, 2019 with a five-year useful life and $2,000 residual value. Assume that on January 5, 2022 the engine in the equipment burned out and needed to be replaced. Detailed records of the equipment showed that the engine had an original cost of $8,000, useful life of five years, and residual value of $1,000 resulting in a carrying amount as at January 5, 2022 of $4,500.

Cost		$8,000
Acc. Dep. 2019	$700	
2020	1,400	
2021	1,400	(3,500)
Carrying amount, January 5, 2022		$4,500

The entry to dispose of the old engine and remove it from the accounting records is:

	Dr	Cr
Accum. Dep. – Equip.	3500	
Loss on Disposal .	4500	
Equipment		8000
To record disposal of destroyed engine.		

Notice in the entry above that the cost of the old engine and the accumulated depreciation must be individually removed from the general ledger accounts. Losses (as well as gains) are reported on the income statement as Other Revenues and Expenses.

Now assume that a replacement engine was installed on January 8 for $10,000 and had a useful life of two years. The revised residual value of the entire piece of equipment is now $4,000. The entry to record the new engine is:

	Dr	Cr
Equipment (Engine)	10000	
Cash		10000
To record the new engine with estimated useful life of 2 years and estimated residual value of zero.		

The revised depreciation for 2022 is calculated in the same was as an addition:

$$= \frac{\text{Remaining carring amount} - \text{Revised resdual value}}{\text{Remaning useful life}}$$

$$= \frac{(20000 - 8000 + 10000) - 4000}{2\text{years}}$$

= $9,000 per year

As with additions, the ½ year rule does not apply to replacements. The adjusting entry at December 31, 2022 to record depreciation expense is:

	Dr	Cr
Dep. Expense – Equip. Acc. Dep. – Equip. To record depreciation expense on equipment	9000	 9000

Subsequent Capital Expenditures

Each major component with a different estimated useful life from the rest of the asset must be recorded and depreciated separately. For instance, assume a commercial airliner is purchased for $100 million ($100M) on January 1, 2019 with the following components: airframe, engines, landing gear, interior, and other parts. The cost of each major component as well as its related accumulated depreciation should be recorded separately in the company's records. Yearly depreciation expense is also calculated separately for each component as shown in the last column below (straight-line depreciation is assumed; ½ year rule is ignored), but these expenses are usually combined into one amount when reported on the income statement ($13.6M in this case).

Components that have the same estimated useful life, residual value, and depreciation method can be grouped together.

Impairment of Long-lived Assets

Under generally accepted accounting principles, management must compare the recoverable amount of a depreciable asset with its carrying amount at the end of each reporting period. The recoverable amount is the estimated fair value of the asset at the time less any estimated costs to sell it. If the recoverable amount is lower than the carrying amount, an impairment loss must be recorded.

An impairment loss may occur for a variety of reasons: technological obsolescence, an economic downturn, or a physical disaster, for example. When an impairment is recorded, subsequent years' depreciation expense must also be revised.

Recall again our $20,000 equipment purchased January 1, 2019 with an estimated useful life of five years and a residual value of $2,000. Assume straight-line depreciation has been recorded for 2019 amounting to $1,800. At December 31, 2020 and before 2020 depreciation is calculated, the carrying amount of the equipment is $18,200 ($20,000 – 1,800). At that point management determines that new equipment with equivalent capabilities can be purchased for much less than the old equipment due to technological changes. As a result, the recoverable value of the original equipment at December 31, 2020 is estimated to be $7,000, with no residual value. Because the recoverable amount is less than its carrying amount of $18,200, an impairment loss of $11,200 ($18,200 – 7,000) is recorded in the accounting records as follows:

	Dr	Cr
Impairment Loss . Acc. Dep. – Equip. To record impairment loss on equipment.	11,200	 11200

This reduces the carrying amount of the equipment to $7,000 ($20,000 – 1,800 – 11,200). Revised depreciation expense of $2,333 per year would be recorded at the end of 2021, 2022, and 2023, calculated as follows, assuming no change to original useful life and residual value:

$$= \frac{\text{Remaining carring amount} - \text{Revised resdual value}}{\text{Remaning useful life}}$$

$$= \frac{\$7000 - 0}{3\text{years}}$$

= $2,333 per year (rounded)

Derecognition of Property, Plant, and Equipment

Property, plant, and equipment is derecognized when it is sold or when no future economic benefit is expected. The cost and any related accumulated depreciation are removed from the accounting records. To account for the disposal of a PPE asset, the following must occur:

1. If the disposal occurs part way through the accounting period, depreciation must be updated to the date of disposal by this type of adjusting entry:

	Dr	Cr
Depreciation Expense	XXX	
Accumulated Dep.		XXX
To adjust depreciation to date of disposal.		

2. The disposal, including any resulting gain or loss, is recorded by this type of adjusting entry:

	Dr	Cr
Cash (or other assets received)	XXX	
Accumulated Depreciation	XXX	
Loss on Disposal	XXX	
PPE Asset		XXX
To record disposal of asset.		
	Dr	Cr
Cash (or other assets received)	XXX	
Accumulated Depreciation	XXX	
PPE Asset		XXX
Gain on Disposal		XXX
To record disposal of asset.		

A loss results when the carrying amount of the asset is greater than the proceeds received. A gain results when the carrying amount is less than proceeds received.

Sale or Retirement of PPE

When a PPE asset is sold or has reached the end of its useful life, the asset's cost and accumulated depreciation must be removed from the records, after depreciation expense has been recorded up to the date of disposal.

Recall the calculation of straight-line depreciation for the equipment purchased for $20,000 with an estimated useful life of five years and a residual value of $2,000. Assume that the equipment is sold on November 30, 2023. First, depreciation would be calculated to the date of disposal. The ½ year rule applies, so the depreciation expense would be $1,800 in 2023 ($3,600 x ½). After this entry is posted, the general ledger T-accounts at December 31, 2023 for Equipment and Accumulated Depreciation would show the following entries:

Accumulated Depreciation - Equipment

	2019	1.800*
	2020	3.600
	2021	3.600
	2022	3.600
	2023	1.800*
		14,600

* ½ year rule applies

Equipment

2019 20000	

The carrying amount at this date is $5,600 ($20,000 cost – 14,400 accumulated depreciation). Three different situations are possible.

1. **Sale at carrying amount**

Assume the equipment is sold for its carrying amount of $5,600. No gain or loss on disposal would occur.

Cost	$ 20,000
Accumulated depreciation	(14,400)
Carrying amount	5,600
Proceeds of disposition	(5,600)
Gain on disposal$	-0-

The adjusting entry would be:

	Dr	Cr
Cash	5600	
Accum.Dep–Equip.	14400	
Equipment		20000

2. **Sale above carrying amount**

Assume the equipment is sold for $7,000. A gain of $1,400 would occur.

Cost	20,000
Accumulated depreciation	(14,400)
Carrying amount	5,600
Proceeds of disposition	(7,000)
Gain on disposal	$1,400

	Dr	Cr
Cash	7000	
Accum.Dep–Equip.	14400	
Equipment		20000
Gain on disposal		1400

3. Sale below carrying amount

Assume the equipment is sold for $500. A loss on disposal of $5,100 would occur.

Cost	$ 20,000
Accumulated depreciation	(14,400)
Carrying amount	5,600
Proceeds of disposition	(500)
Loss on disposal$	5,100

	Dr	Cr
Cash	500	
Accum.Dep–Equip.	14400	
Loss on disposal	5100	
Equipment		20000

In each of these cases, the cash proceeds must be recorded (by a debit) and the cost and accumulated depreciation must be removed from the accounts. A credit difference represents a gain on disposal while a debit difference represents a loss.

Disposal Involving Trade-In

It is a common practice to exchange a used PPE asset for a new one. This is known as a trade-in. The value of the trade-in agreed by the purchaser and seller is called the trade-in allowance. This amount is applied to the purchase price of the new asset, and the purchaser pays the difference. For instance, if the cost of a new asset is $10,000 and a trade-in allowance of $6,000 is given for the old asset, the purchaser will pay $4,000 ($10,000 – 6,000).

Sometimes as an inducement to the purchaser, the trade-in allowance is higher than the fair value of the used asset on the open market. Regardless, the cost of the new asset must be recorded at its fair value, calculated as follows:

Cost of new asset = Cash paid + Fair value of asset traded

If there is a difference between the fair value of the old asset and its carrying value, a gain or loss results. For example, assume again that equipment was purchased for $20,000 on January 1, 2019. At that time, it had a residual value of $2,000 and a useful life of five years. It is traded on November 30, 2023 for new equipment with a list price of $25,000. A trade-in allowance of $2,500 is given on the old equipment, so cash paid is $22,500 ($25,000 – 2,500). At the time, the old asset has a fair value of only $1,800. In this case, the cost of the new asset is calculated as follows:

Cost of new asset = Cash paid + Fair value of asset traded = $22,500 + 1,800 = $24,300

There will be a loss on disposal of $200 on the old equipment, calculated as follows:

Cost $	20,000
Accumulated dep.	(14,400)
Carrying amount	5,600
Fair value	(1,800)
Loss on disposal	$3,800

The journal entry on November 30, 2023 to record the purchase of the new equipment and trade-in of the old equipment is:

	Dr	Cr
Equipment -new	24,300	
Accum.Dep–Equip.	14400	
Loss on disposal	3,800	
Equipment-old		20000
Cash		22,500
To record purchase of new		

equipment and trade-in of old equipment		

By this entry, the cost of the new equipment ($24,300) is entered into the accounts, the accumulated depreciation and cost of the old equipment is removed from the accounts, and the amount of cash paid is recorded. The debit difference of $3,800 represents the loss on disposal of the old equipment.

Intangible Assets

Another major category of long-lived assets is intangible assets. These arise from legal rights. They do not have physical substance. The characteristics of various types of intangible assets are discussed below.

Patents

A patent grants a company an exclusive legal privilege to produce and sell a product or use a process for a specified period. This period varies depending on the nature of the product or process patented, and on the legislation in effect. Modifications to the original product or process can result in a new patent being granted, in effect extending the life of the original patent.

Patents are recorded at cost. If purchased from an inventor, the patent's cost is easily identified. If developed internally, the patent's capitalized costs include all expenditures incurred in the development of the product or process, including salaries and benefits of staff involved.

Copyrights

A copyright confers on the holder an exclusive legal privilege to publish a literary or artistic work. In this case, the state grants control over a published or artistic work for the life of the copyright holder (usually the original artist) and for a specified period afterward. This control extends to the reproduction, sale, or other use of the copyrighted material.

Trademarks

A trademark is a symbol or a word used by a company to identify itself or one of its products in the marketplace. Symbols are often logos printed on company stationery or displayed at company offices, on vehicles, or in advertising. A well-known example is Coke®. The right to use a trademark can be protected by registering it with the appropriate government agency. The symbol '®'denotes that a trademark is registered. Its use by others is thereby restricted.

Franchises

A franchise is a legal right granted by one company (the franchisor) to another company (the franchisee) to sell particular products or to provide certain services in a given region using a specific trademark or trade name. In return, the franchisee pays a fee to the franchisor. McDonald's® is an example of a franchised fast-food chain.

In addition to the payment of an initial franchise fee, which is capitalized, a franchise agreement usually requires annual payments. These payments are considered operating expenses.

Computer Software

Computer software programs may be developed by a company, patented, and then sold to customers for use on their computers. Productivity software like Microsoft Office® is an example. The cost of acquiring and developing computer software programs is recorded as an intangible asset, even if it is stored on a physical device like a computer. However, computer software that is integral to machinery— for instance, software that is necessary to control a piece of production equipment—is included as the cost of the equipment and classified as PPE.

Goodwill

Assume that Big Dog Carworks Corp. purchases another company for $10 million ($10M). BDCC takes over all operations, including management and staff. There are no liabilities. The fair values of the purchased assets consist of the following:

Patents	$2M
Machinery	$7M
Total	$9M

Why would BDCC pay $10M for assets with a fair value of only $9M? The extra $1M represents goodwill. Goodwill is the excess paid over the fair value of the net assets when one company buys another. It is an estimate of the ability of the company to generate superior earnings in the future compared to other companies in the same industry.

Goodwill is the combination of the acquired company’s assets which cannot be separately identified—such as a well-trained workforce, better retail locations, superior products, or excellent senior managers—the value of which is recognized only when a significant portion of the business is purchased by another company.

Capitalization of Intangible Assets

Normally, intangible assets are measured at cost at the time of acquisition and are reported in the asset section of a company’s balance sheet under the heading “Intangible Assets.” The cost of an acquired intangible asset includes its purchase price and any expenditures needed to directly prepare it for its intended use. Only rarely are subsequent expenditures added to the initial cost of a purchased intangible asset. Instead, these are expensed as they are incurred.

Amortization of Intangible Assets

Plant and equipment assets are depreciated. Intangible assets are also depreciated but the term used is amortization instead of depreciation. Amortization is the systematic process of allocating the cost of intangible assets over their estimated useful lives. The straight-line method is usually used.

Like PPE, useful life and residual value of intangible assets are estimated by management and must be reviewed annually for reasonableness. As well, any effects on amortization expense because of changes in estimates are accounted for prospectively. That is, prior accounting periods' expenses are not changed.

To demonstrate the accounting for intangibles, assume a patent is purchased for $20,000 on April 1, 2019. The entry to record the purchase is:

	Dr	Cr
Patent Cash To record the purchase of a patent as an intangible asset.	20000	 20000

Assuming the patent will last 40 years with no residual value and the ½ year rule applies, amortization expense will be recorded at the December 31, 2019 year-end as:

	Dr	Cr
Amortization Expense	250	
Patent		250
To record patent amortization: ($20,000/40 yrs. = $500 x ½ = $250).		

Notice that the Patent general ledger account is credited and not Accumulated Amortization. There is no accumulated amortization account maintained for intangible assets.

In other respects, impairment losses, and gains and losses on disposal of intangible assets are calculated and recorded in the same manner as for property, plant, and equipment.

Questions:

1- Mayr Inc. purchased a machine for its factory on June 6, 2020 for $110,000. The machine is expected to have an estimated useful life of ten years with a residual value of $10,000. Assume the company uses the ½ year rule to calculate depreciation expense in the year of acquisition and disposal.

Required: Compute the depreciation for 2020 and 2021 using

A- The straight-line method

B- The double-declining balance method.

2- Penny Corp. purchased a new car on March 1, 2020 for $25,000. The estimated useful life of the car was five years or 500,000 kms. Estimated residual value was $5,000. The car was driven 120,000 kms. in 2020 and 150,000 kms. in 2021.

Required: Calculate the depreciation for 2020 and 2021 using

A- The straight-line method

B- Usage method (kms.)

C- Double-declining balance method.

3- Murphy Limited purchased a $30,000 asset with a five-year life expectancy and no residual value. Two alternative methods of calculating depreciation expense are presented below.

Year	Method A	*Method B*
1	$3,000	$6,000
2	6,000	9,600
3	?	?

Required:

A. Identify the method of depreciation and compute the depreciation expense for the third year under each method.

B. The chief financial officer of Murphy considers depreciation to be nothing more than an arbitrary calculation, based on unreliable estimates. She proposes to use method B for years 1 and 2 and method A for years 3, 4, and 5. In this way, she can deduct the maximum depreciation each year over the life of the asset. Is her proposal acceptable? Why or why not?

4- St. Laurent Limited purchased a truck for cash on January 1, 2020. The company's fiscal year-end is December 31. The company uses the ½ year rule to calculate depreciation in the year of acquisition and disposal. The following details apply:

Cost $10500-Useful life 5years-Residual value $500-Depreciation method, Double-declining.

On March 1, 2021, the company paid $3,500 for gas and oil, a tune-up, new tires, and a battery. It also paid $4,000 to install a lift on the back of the truck. The latter amount is material.

Required:

-Prepare journal entries to record

a. the purchase of the truck

b. depreciation for 2020

c. the 2021 expenditures relating to the truck

d. depreciation for 2021.

-Prepare the journal entries to record the sale of the truck on March 3, 2022 for $8,000 cash, including 2022 depreciation expense.

5-Brown Company paid $900,000 cash to purchase the following tangible and intangible assets of Coffee Company on January 1, 2020:

Land	$300,000
Building	200,000
Patents	100,000
Machinery	250,000

The building is depreciated using the double-declining balance method, has an estimated useful life of ten years, and a residual value of $10,000. The machinery has an estimated useful life of five years and a residual value of 10% of cost. Depreciation expense is calculated on the basis of productive output. The machinery's productive output was estimated to be 60,000 units. Actual production was as follows:

2020	10000
2021	15000
2022	20000

The patents have an estimated useful life of twenty years and are amortized on a straight-line basis. They have no residual value. On December 31, 2021, the value of the patents was estimated to be $80,000. The machinery was sold on December 2, 2022 for $100,000. The company uses the ½ year rule to calculate depreciation and amortization expense in the years of acquisition and disposal. Its fiscal year-end is December 31.

Required: Prepare journal entries to record in the records of Brown:

A. The $900,000 purchase

B. Depreciation and amortization expense for 2016

C. The decline in value of the patents at December 31, 2021

D. The sale of the machinery

6- Robbins Inc. purchased the following assets of Marine Company for $500,000 cash on September 30, 2020:

Land $300,000

Building 100,000

Computer software 75,000

The building will be depreciated using the straight-line method. It has an estimated useful life of forty years and a residual value of 10% of cost.

The computer software has an estimated useful life of three years and no residual value. It will be amortized using the double-declining balance method. On January 2, 2021, the value of the computer software was estimated at $50,000. The computer software was sold on September 15, 2022 for $65,000.

Robbins Inc. uses the ½ year rule to calculate depreciation and amortization expense in the year of acquisition and disposal. Its fiscal year-end is December 31.

Required:

-Prepare journal entries to record

a. the $500,000 purchase

b. depreciation and amortization expense for 2020

c. the change in the value of the computer software at January 2, 2021

d. the sale of the computer software on September 15, 2022.

-Calculate the carrying amounts of the assets at December 31, 2022.

7- Spellman Inc. purchased its first piece of equipment on January 1, 2020. The following information pertains to this machine:

Cost $11000- Estimated useful life 5years-Residual value $1000.

As the chief accountant for the company, you need to choose the depreciation method to be used.

Required:

-Calculate the straight-line and double-declining balance method depreciation for 2020, 2021, and 2022. Assume the ½ year rule does not apply to any of these years.

-Using the format provided, complete comparative partial income statements and balance sheets at December 31 for both the straight-line and declining balance methods of depreciation.

8- Fox Creek Machining Ltd. purchased a cutting machine at the beginning of 2020 for $46,000. Fox Creek paid additional charges of $1,200 and $2,800 for freight and installation, respectively. It paid $1,000 to have the building in which the machine was housed suitably altered. Residual value was $2,000.

The company uses the ½ year rule for calculating depreciation expense in the year of acquisition and disposal.

Required:

-Calculate the capitalized cost of the machine.

-Record the adjusting entry for depreciation expense that would be calculated for 2020, 2021, and 2022 using

a. straight-line method (with a useful life of three years)

b. double-declining balance method.

-On January 1, 2021 Fox Creek revised the estimated useful life of the machine from a total of three years to a total of five years. Residual value remained at $2,000. Calculate the depreciation that

should be recorded in 2021, 2022, 2023 and 2024 using the straight-line method of depreciation.

9- On January 1, 2021, Davies Fabricating Inc. was able to buy a nearby warehouse for the storage of its finished product. The cost included land, $50,000 and building, $300,000. The company signed a ten-year bank loan for $320,000 and paid the balance in cash. The building had an estimated useful life of fifty years with no residual value. On June 28, 2025, the warehouse was totally destroyed by fire. On July 31, the company was notified that it would receive $270,000 from the insurance company as settlement in full for the building at a later date. The building was depreciated on the straight-line basis. Assume the company uses the ½ year rule to calculate depreciation expense in the year of acquisition and disposal.

Required: Prepare journal entries to record the transactions on the following dates:

1. January 1, 2021
2. June 28, 2025.

10- Janz Corporation purchased a piece of machinery on January 1, 2019. The company's year-end is December 31. The following information is applicable:

Cost $90,000-Useful life 9,000 units - Residual value-0- Depreciation method, Usage.

-Output during 2020 and 2021 was 2,000 and 3,000 units, respectively.

Required:

-Calculate the depreciation expense for 2020 and 2021.

-What is the balance of accumulated depreciation at the end of 2021?

-What is the carrying amount of the machinery shown on the balance sheet at the end of 2021?

-Prepare a partial comparative balance sheet for Janz Corporation at the end of 2021.

Chapter (3)

Cash and Receivables

This chapter focuses on two types of current assets – cash and receivables. Internal control over cash involves processes and procedures that include the use of a petty cash fund and Receivables can be determined to be uncollectible. To match the cost of uncollectible accounts and the related revenue, bad debts must be estimated using either the income statement method or balance sheet method. Actual account receivables are written off when judged to be uncollectible. Write-offs can be subsequently recovered. The journalizing of short-term notes receivable and related interest revenue is also discussed in this chapter.

Internal Control

Assets are the lifeblood of a company. As such, they must be protected. This duty falls to managers of a company. The policies and procedures implemented by management to protect assets are collectively referred to as internal controls. An effective internal control program not only protects assets, but also aids in accurate recordkeeping, produces financial statement information in a timely manner, ensures compliance with laws and regulations, and promotes efficient operations. Effective internal control procedures ensure that adequate records are maintained, transactions are authorized, duties among employees are divided between recordkeeping functions and control of assets, and employees' work is checked by others. The use of electronic recordkeeping systems does not decrease the need for good internal controls.

The effectiveness of internal controls is limited by human error and fraud. Human error can occur because of negligence or mistakes. Fraud is the intentional decision to circumvent internal control systems for personal gain. Sometimes, employees cooperate in order to avoid internal controls. This collusion is often difficult to detect, but fortunately, it is not a common occurrence when adequate controls are in place.

Internal controls take many forms. Some are broadly based, like mandatory employee drug testing, video surveillance, and scrutiny of company email systems.

Others are specific to a particular type of asset or process. For instance, internal controls need to be applied to a company's accounting system to ensure that transactions are processed efficiently and correctly to produce reliable records in a timely manner. Procedures should be documented to promote good recordkeeping, and employees need to be t Financial statements prepared according to generally accepted accounting principles are useful not only to external users in evaluating the financial performance and financial position of the company, but also for internal decision making. There are various internal control mechanisms that aid in the production of timely and useful financial information. For instance, using a chart of accounts is necessary to ensure transactions are consistently recorded in the appropriate account.

The design of accounting records and documents is another important means to provide financial information. Financial data is entered and summarized in records and transmitted by documents. A good system of internal control requires that these records and documents be prepared at the time a transaction takes place or as soon as possible afterward, since they become less credible and the possibility of error increases as time passes. Documents supporting financial transactions - for example, sales invoices - should also be consecutively pre-numbered, to indicate whether Internal control also promotes the protection of assets. Cash is particularly vulnerable to misuse. A good system of internal control for cash should provide adequate procedures for protecting cash receipts and cash disbursements. Procedures to exercize control over cash vary from company to company and depend upon such variables as company size, number of employees, and cash sources. However, effective cash control generally requires the following:

- Separation of duties: People responsible for handling cash should not be responsible for maintaining cash records. By separating the custodial and record-keeping duties, theft of cash and its concealment is less likely.

- Same-day deposits: All cash receipts should be deposited daily in the company’s bank account. This prevents theft and personal use of the money before deposit.

- Payments made using non-cash means: Cheques or electronic funds transfer (EFT) provide separate external records to verify cash disbursements. For example, many businesses pay their employees using electronic funds transfer because it is more secure and efficient than using cash or even cheques.

Two forms of internal control over cash: the use of a petty cash account and the preparation of bank reconciliations.in this chapter will discuss the petty cash account.

Petty Cash

The payment of small amounts by cheque may be inconvenient and costly. For example, using cash to pay for postage on an incoming package might be less than the total cost of processing a cheque. A small amount of cash kept on hand to pay for small, infrequent expenses is referred to as a petty cash fund.

Establishing and Reimbursing the Petty Cash Fund

To set up the petty cash fund, a cheque is prepared for the amount of the fund. The custodian of the fund cashes the cheque and places the coins and currency in a locked box. Responsibility for the petty cash fund should be delegated to only one person, who should be held accountable for its contents. Cash payments, supported by receipts, are made by this petty cash custodian out of the fund as required. When the amount of cash has been reduced to a pre-determined level, the receipts are compiled and submitted for entry into the accounting system. A cheque is then issued to reimburse the petty cash fund for the total amount of the receipts. At any given time, the petty cash amount should consist of cash and supporting receipts, all totalling the petty cash fund amount. To demonstrate the management of a petty cash fund, assume that a $200 cheque is issued for the purpose of establishing a petty cash fund.

The journal entry is:

	Dr	Cr
Petty Cash	200	
Cash		200
To establish the $200 petty cash fund.		

Petty Cash is a current asset account. When reporting Cash on the financial statements, the balances in Petty Cash and Cash are usually added together and reported as one amount.

Assume the petty cash custodian has receipts totalling $190 and $10 in coin and currency remaining in the petty cash box. The receipts consist of the following: delivery charges, $100; postage, $35; and office supplies, $55. The petty cash custodian submits the receipts to the accountant who records the following entry and issues a cheque for $190.

	Dr	Cr
Delivery Expense	100	
Postage Expense	35	
Office Supplies Expense*	55	
Cash		190
To reimburse the petty cash fund		

*An expense is debited instead of an asset like Unused Office Supplies. The need to purchase supplies through petty cash assumes the immediate use of the items.

As an added internal control, petty cash receipts should be cancelled at the time of reimbursement in order to prevent their reuse for duplicate reimbursements. The petty cash custodian cashes the $190 cheque. The $190 plus the $10 of coin and currency in the locked box immediately prior to reimbursement equals the $200 total maintained in the petty cash fund.

Sometimes, the receipts plus the coin and currency in the petty cash locked box do not equal the required petty cash balance. To demonstrate, assume the same information above except that the coin and currency remaining in the petty cash locked box was $8. This amount plus the receipts for $190 equals $198 and not $200, indicating a shortage in the petty cash box. The entry at the time of reimbursement reflects the shortage and is recorded as:

	Dr	Cr
Delivery Expense	100	
Postage Expense	35	
Office Supplies Expense	55	
Cash Over/Short Expense	2	
Cash		192
To reimburse the petty cash fund and account for the $2 shortage.		

Notice that the $192 credit to Cash plus the $8 of coin and currency remaining in the petty cash box immediately prior to reimbursement equals the $200 required total in the petty cash fund.

Assume, instead, that the coin and currency in the petty cash locked box was $14. This amount plus the receipts for $190 equals $204 and not $200, indicating an overage in the petty cash box. The entry at the time of reimbursement reflects the overage and is recorded as:

	Dr	Cr
Delivery Expense	100	
Postage Expense	35	
Office Supplies Expense	55	
Cash Over/Short Exp.		4
Cash		186
To reimburse the petty cash fund and account for the $4 overage.		

Again, notice that the $186 credit to Cash plus the $14 of coin and currency remaining in the petty cash box immediately prior to reimbursement equals the $200 required total in the petty cash fund.

The size of the petty cash fund should not be large enough to become a potential theft issue. If a petty cash fund is too large, it may be an indicator that transactions that should be paid by cheque are not being processed in accordance with company policy.

Accounts Receivable

Recall that the revenue portion of the operating cycle, begins with a sale on credit and is completed with the collection of cash. Unfortunately, not all receivables are collected. This section discusses issues related to accounts receivable and their collection.

Uncollectible Accounts Receivable

Extending credit to customers results in increased sales and therefore profits. However, there is a risk that some accounts receivable will not be collected. A good internal control system is designed to minimize bad debt losses. One such control is to permit sales on account only to credit-worthy customers; this can be difficult to determine in advance. Companies with credit sales realize that some of these amounts may never be collected. These uncollectible accounts, commonly known as bad debts, are an expense associated with selling on credit.

Bad debt expenses should be matched to the credit sales of the same period. For example, assume BDCC recorded a $1,000 credit sale to XYA Company in April, 2020. Assume further that in 2021 it was determined that the $1,000 receivable from XYA Company would never be collected. The bad debt arising from the credit sale to XYA Company should be matched to the period in which the sale occurred, namely, April, 2020. But how can that be done if it is not known which receivables will become uncollectible until a future date? A means of estimating and recording the amount of sales that will not be collected in cash is needed. This is done by establishing a contra current asset account called Allowance for Doubtful Accounts in the general ledger to record estimated uncollectible receivables. This account is a contra account to accounts receivable and is disclosed on the balance sheet as shown below using assumed values.

Accounts receivable	$25,000
Less: Allowance for doubtful accounts	(1,400)
	$23,600

OR

Accounts receivable (net of $1,400 allowance for doubtful accounts)	$ 23,600

The Allowance for Doubtful Accounts contra account reduces accounts receivable to the amount that is expected to be collected—in this case, $23,600.

Estimating Uncollectible Accounts Receivable

The allowance for doubtful accounts is used to reflect how much of the total Accounts Receivable is estimated to be uncollectible. To record estimated uncollectible accounts, the following adjusting entry is made.

	Dr	Cr
Bad Debts Expense	xxx	
Allow. For Doubt. Acct.		xxx
To record estimated uncollectible accounts receivable		

The bad debt expense is shown on the income statement. Allowance for doubtful accounts appears on the balance sheet and is subtracted from accounts receivable resulting in the estimated net realizable accounts receivable.

Two different methods can be used to estimate uncollectible accounts. One method focuses on estimating Bad Debt Expense on the income statement, while the other focuses on estimating the desired balance in allowance for doubtful accounts on the balance sheet.

The Income Statement Method

The objective of the income statement method is to estimate bad debt expense based on credit sales. Bad debt expense is calculated by applying an estimated loss percentage to credit sales for the period. The percentage is typically based on actual losses experienced in prior years. For instance, a company may have the following history of uncollected sales on account:

Year	Credit sales	Amounts not collected
2019	$150000	$1000
2020	200000	1200
2021	250000	800
	$600000	$3000

The average loss over these years is $3,000/$600,000, or ½ of 1%. If management anticipates that similar losses can be expected in 2018 and credit sales for 2018 amount to $300,000, bad debts expense would be estimated as $1,500 ($300,000 x 0.005).

Under the income statement method, the $1,500 represents estimated bad debt expense and is recorded as:

	Dr	Cr
Bad Debts Expense	1500	
Allow. For Doubt. Acct.		1500
To record estimated bad debts expense		

This estimated bad debt expense is calculated without considering any existing balance in the allowance for doubtful accounts.

-Allowance for doubtful account before posting adjustment Assume the balance remaining in Allowance for doubtful accounts from the previous period is $250.

-Allowance for doubtful account after posting adjustment The adjustment estimating bad debt expense of $1,500 is posted to allowance for doubtful accounts to get an adjusted balance of $1,750.

Allowance for Doubtful Accounts

		Balance	250

Allowance for Doubtful Accounts

		Balance	250
		Adjust.	1500
		Adjusted balance	1750

The Balance Sheet Method

Estimated uncollectible accounts can also be calculated by using the balance sheet method where a process called aging of accounts receivable is used. At the end of the period, the total of estimated uncollectible accounts is calculated by analyzing accounts receivable according to how long each account has been outstanding. An aging analysis approach assumes that the longer a receivable is outstanding, the less chance there is of collecting it. This process is illustrated in the following schedule.

	Number Of Days Outstanding				
Totals	1-30	31-60	61-90	91-120	Over 120
$1000					$1000
6000	1000	3000	2000		
4000	2000	1000		1000	
5000	3000	1000		1000	
9000	4000			5000	
$25000	$10000	$5000	$2000	$7000	$1000

In this example, accounts receivable total $25,000 at the end of the period. These are classified into five time periods: those receivables that 1–30 days past due; 31–60 days past due; 61–90 days past due; 91–120 days past due; and over 120 days past due.

Based on past experience, assume management estimates a bad debt percentage for each time period as follows:

Number Of Days Outstanding

1-30	31-60	61-90	91-120	Over120
1%	3%	5%	10%	40%

The calculation of expected uncollectible accounts receivable at December 31, 2019 would be as follows:

Calculation of Uncollectible Amounts

December,31, 2019

Age(day)	Accounts receivables	Estimated bad debt percentage	Estimated uncollectible amount
1-30	$10000	1%	$100
31-60	5000	3%	150
61-90	2000	5%	100
91-120	7000	10%	700
Over120	1000	40%	400
Totals	$25000		$1450

A total of $1,450 of accounts receivable is estimated to be uncollectible at December 31, 2019.

Under the balance sheet method, the estimated bad debt expense consists of the difference between the opening allowance for doubtful accounts balance

($250, as in the prior example) and the estimated uncollectible receivables ($1,450) required at year-end.

-The balance remaining in the account is $250 from the previous period.

-The total estimated uncollectible receivables is $1,450.

$1,200 must be recorded to bring the account to $1,450.

Allowance for Doubtful Accounts

		Balance	250
		Adjust.	1200
		Adjusted balance	1450

The adjustment is recorded by the following journal entry:

	Dr	Cr
Bad Debts Expense	1200	
Allow. For Doubt. Acct.		1200
To record estimated bad debts expense		

As an alternative to using an aging analysis to estimate uncollectible accounts, a simplified balance sheet method can be used. The simplified balance sheet method calculates the total estimated uncollectible accounts as a percentage of the outstanding accounts receivables balance. For example, assume an unadjusted balance in the allowance for doubtful accounts of $250 as in the preceding example. Also assume the accounts receivable balance at the end of the period was

$25,000 as in the previous illustration. If it was estimated that 6% of these would be uncollectible based on historical data, the adjustment would be:

	Dr	Cr
Bad Debts Expense	1250	
Allow. For Doubt. Acct.		1250
To record estimated bad debts expense		

The total estimated uncollectible accounts was $1,500 ($25,000 × 6%). Given an unadjusted balance in allowance for doubtful accounts of $250, the adjustment to allowance for doubtful accounts must be a credit of $1,250 ($1,500 - $250).

Regardless of whether the income statement method or balance sheet method is used, the amount estimated as an allowance for doubtful accounts seldom agrees with the amounts that actually prove uncollectible. A credit balance remains in the allowance account if fewer bad debts occur during the year than are estimated. There is a debit balance in the allowance account if more bad debts occur during the year than are estimated. By monitoring the balance in the Allowance for Doubtful Accounts general ledger account at each year-end, though, management can determine whether the estimates of uncollectible amounts are accurate. If not, they can adjust these estimates going forward.

Writing Off Accounts Receivable

When recording the adjusting entry to estimate uncollectible accounts receivable at the end of the period, it is not known which specific receivables will become uncollectible. When a specific account is determined to be uncollectible, it must be removed from the accounts receivable account. This process is known as a write-off. To demonstrate the write-off of an account receivable, assume that on January 15, 2021 the $1,000 credit account for customer Bendix Inc. is identified as uncollectible because of the company's bankruptcy. The receivable is removed by this entry:

	Dr	Cr
Allow. For Doubt. Acct.	1000	
Acct. Rec. – Bendix Inc		1000
To write-off Bendix Inc.'s account receivable		

The $1,000 write-off reduces both the accounts receivable and allowance for doubtful accounts. The write-off does not affect net realizable accounts receivable, as demonstrated below.

	Before write-off	Write-off	After write-off
Accounts receivable	$25000	Cr1000	$24000
Less: Allowance for doubtful accounts	1450	Dr1000	450
Net accounts receivable	$23550		$23550

A write-off does not affect bad debt expense. Recall that the adjusting entry to estimate uncollectible accounts was:

	Dr	Cr
Bad Debts Expense Allow. For Doubt. Acct. To record estimated uncollectible accounts receivable	xxxx	 xxxx

This adjustment was recorded because GAAP requires that the bad debt expense be matched to the period in which the sales occurred even though it is not known which receivables will become uncollectible. Later, when an uncollectible receivable is identified, it is written off as:

	Dr	Cr
Allow. For Doubt. Acct. Accounts Receivable To record estimated uncollectible	xxxx	 xxxx

accounts receivable		

The allowance for doubtful accounts entries cancel each other out so that the net effect is a debit to bad debt expense and a credit to accounts receivable. The use of the allowance for doubtful accounts contra account allows us to estimate uncollectible accounts in one period and record the write-off of bad receivables as they become known in a later period.

Recovery of a Write-Off

When Bendix Inc. went bankrupt, its debt to Big Dog Carworks Corp. was written off in anticipation that there would be no recovery of the amount owed. Assume that later, an announcement was made that 25% of amounts owed by Bendix would be paid. This new information indicates that BDCC will be able to recover a portion of the receivable previously written off. A recovery requires two journal entries. The first entry reinstates the amount expected to be collected by BDCC - $250 ($1,000 x 25%) in this case - and is recorded as:

	Dr	Cr
Accounts Rec. – Bendix Inc.	250	
Allow. For Doubt. Acct.		250
To reverse write-off and reinstate collectible portion of account.		

This entry reverses the collectible part of the receivable previously written off. The effect of the reversal is shown below.

Accounts Receivable

Balance	25000	Write-off	1000
Recovery	250		

Allowance for Doubtful Accounts

Write-off	1000	Balance	1450
		Recovery	250

The second entry records the collection of the reinstated amount as:

	Dr	Cr
Cash	250	
Accounts Rec. – Bendix Inc.		250
To record recovery of collectible portion of account previously written off.		

The various journal entries related to accounts receivable are summarized below.

	Dr	Cr
Sale on account		
Accounts Receivable	xxxx	
Cost of goods sold	xxxx	
Sales		xxxx
Finished goods inventory		xxxx
Adjusting entry estimating uncollectible accounts		
Bad Debts Expense	xxxx	
Allow. For Doubt. Acct		xxxx
Write-off of uncollectible account		
Allow. For Doubt. Acct.	xxxx	
Accounts Receivable		xxxx

Recovery of account previously written off		
Accounts Receivable Allow. For Doubt. Acct	xxxx	 xxxx
Cash Accounts Receivable	xxxx	 xxxx

Notes Receivable

Notes receivable are formalized accounts receivable. They are recorded as current assets if they are due within twelve months of the date of issue. A note receivable is a signed, legally-enforceable document. The customer who owes the money promises to pay the company the principal plus interest on the due date. The principal is the amount of the account receivable. Interest is calculated as: (principal × annual Interest rate × length of time outstanding).

Notes receivable can arise at the time of sale or when a customer's account receivable becomes overdue. For example, assume that BDCC provided $4,000 of services to customer Woodlow on August 1, 2019, but this amount is still unpaid at November 30. Because of the length of time that has elapsed, BDCC and the customer agree to sign a 4%, 3-month note receivable on December 1. The journal entry on August 1 would be:

	Dr	Cr
Account Rec. - Woodlow Service Revenue To record service revenue from Woodlow.	4,000	 4,000

Then entry on December 1 to record the conversion of the account receivable to a note receivable would be:

	Dr	Cr
Note Receivable - Woodlow	4,000	
Account Rec. - Woodlow		4,000
To record conversion of the account receivable from Woodlow to a 4%, 3-month note receivable due February 28, 2021.		

If a year-end occurred on December 31, 2015, an adjusting entry would be made to record accrued interest from December 1 to December 31:

	Dr	Cr
Interest Receivable	13	
Interest Earned		13
To record interest accrued on the Woodlow note receivable at year-end ($4,000 x 4% x 1/12 mos. = $13).		

The maturity date is three months from the date of issue, or February 28, 2016. On that date, BDCC would record the collection of the note receivable and related interest as:

	Dr	Cr
Cash	4040	
Note Rec. -Woodlow		4000
Interest Receivable		13
Interest Earned		27
To record the collection of the note receivable and interest from January 1 to February 28, 2016 ($4,000 x 4% x 2/12 mos. = $27).		

Questions:

1- The following transactions were made by Landers Corp. in March 2019.

Mar. 1	Established a petty cash fund of $200	
12	Reimbursed the fund for the following:	
	Postage	$10
	Office supplies	50
	Maintenance	35
	Meals (selling expenses)	25
		$120
18	Increased the fund by an additional $200	
25	Reimbursed the fund for the following:	
	Office supplies	$75
	Delivery charges	30
		$105
28	Reduced the amount of the fund to $350.	

Required: Prepare journal entries to record these transactions.

2- K Co. Ltd. began operations on January 1, 2019. It had the following transactions during 2019, 2020, and 2021.

2019 Dec31	Estimated uncollectible accounts as $5,000 (calculated as 2% of sales)
2020	
Apr.15	Wrote off the balance of N. Lang, $700
Aug 8	Wrote off $3,000 of miscellaneous customer accounts as uncollectible
Dec.31	Estimated uncollectible accounts as $4,000 (1½% of sales)
2021 Mar. 6	Recovered $200 from N. Lang, whose account was written off in 2016; no further recoveries are expected
Sep. 4	Wrote off as uncollectible $4,000 of miscellaneous customer accounts

Dec.31 Estimated uncollectible accounts as $4,500 (1½% of sales).

Required:

A-Prepare journal entries to record the above transactions.

B-Assume that management is considering a switch to the balance sheet method of calculating the allowance for doubtful accounts. Under this method, the allowance at the end of 2021 is estimated to be $2,000. Comment on the discrepancy between the two methods of estimating allowance for doubtful accounts.

3- ELRada Inc. had the following unadjusted account balances at December 31, 2021, its year-end.

	Account Balances	
	Debit	Credit
Accounts Receivable	$125000	
Allowance for Doub. Accounts		$3000
Sales		$750000

ELRada estimates its uncollectible accounts as five per cent of its December 31 accounts receivable balance.

Required:

A-Calculate the amount of estimated uncollectible accounts that will appear on Impulse's balance sheet at December 31, 2021.

B-Calculate the amount of bad debt expense that will appear on Impulse's income statement at December 31, 2021.

C-Prepare a partial balance sheet at December 31, 2021 showing accounts receivable, allowance for doubtful accounts, and the net accounts receivable.

4- The following information is taken from the records of Salzl Corp. at its December 31 year-end:

	2020	2021
Accounts written off		
During 2016	$2400	
During 2017		$1000
Recovery of accounts written off		
Recovered in 2017		300
Allowance for doubtful accounts (adjusted balance)		
At December 31, 2015	8000	
At December 31, 2016	9000	

Salzl had always estimated its uncollectible accounts at two per cent of sales. However, because of large discrepancies between the estimated and actual amounts, Hilroy decided to estimate its December 31, 2020 uncollectible accounts by preparing an ageing of its accounts receivable. An amount of $10,000 was considered uncollectible at December 31, 2021.

Required:

A-Calculate the amount of bad debt expense for 2020.

B-Calculate the amount of bad debt expense for 2021.

5- Elliot Inc. has the following unadjusted account balances at December 31, 2019:

	Account Balances	
	Debit	Credit
Accounts Receivable	$50000	
Allowance for Doub. Accounts	1000	
Sales		$200000

Required:

A-Assume Elliot estimates that two per cent of its sales will not be collected.

-What amount of bad debt expense will be reported on Elliot’s income statement at December 31, 2019?

-What amount of allowance for doubtful accounts will be reported on Elliot’s balance sheet at December 31, 2019?

B-Assume Elliot estimates that five percent of accounts receivable will not be collected.

-What amount of bad debt expense will be reported on Elliot’s income statement at December 31, 2019?

-What amount of allowance for doubtful accounts will be reported on Elliot’s balance sheet at December 31, 2019?

C-Which calculation provides better matching: that made in questionA or in question B? Why?

6- A $12,000 account receivable owing from Smith Co. to Jones Inc. was converted into a 6%, 3-month note receivable on November 1, 2020.

Required:

A-Prepare the entry needed to record the note receivable in Jones’ accounting records.

B-Prepare the entry needed to record accrued interest on the note receivable in Jones’ accounting records at December 31, 2020.

C-Record the cash received from the note in Jones’ accounting records on February 1, 2021.

7- The following transactions were made by Simpson Corp. in December 2019.

Dec.1 Established a petty cash fund of $100.

14 Reimbursed the fund for receipts as follows:

Office supplies	$50
Maintenance	35

Petty cash on hand prior to reimbursement was $46

24 Reimbursed the fund for the following:

Office supplies	$10

Delivery charges 20

Petty cash on hand prior to reimbursement was $72.

31 Reduced the amount of the fund to $50.

Required:

Prepare journal entries to record these transactions.

8- The Accounts Receivable general ledger account of the Pure Springs Corporation shows a balance of $370,500 on June 30, 2021. A summary of the analysis of accounts receivable by age shows:

Age (days)	*Accounts receivable*	*Estimated loss percentage*
1-30	$300,000	0.5%
31-60	25,000	4%
61-90	30,000	5%
91-120	12,500	15%
Over 120	3,000	40%
Total	$370,500	

On June 30, Allowance for Doubtful Accounts in the general ledger has a debit balance of $310 before adjustments.

Required: Prepare the necessary adjusting entry.

9- Z Corp. had the following transactions relating to uncollectible accounts during 2020:

Feb.15- Wrote off F. Young’s account of $200 as uncollectible.

Apr. 30- Collected from G. Yopek Inc. $100 that had been written off in 2019.

June 26- Received $300 from Wong Machine Ltd. (Wong’s previous balance was $700); no further payments are expected and the balance was written off.

Sept. 7- Wrote off H. Wolfe’s account of $350

Dec. 31-Analysed accounts receivable, revealing the following:

a. Accounts to be written off:

S. Wuff $300

P. Levesque 400

T. White 100

b. Ageing of accounts receivable:

Age (days)	Accounts receivable	Estimated loss percentage
1-30	$ 20,000	2%
31-60	12,000	4%
61-90	5,000	5%
91-120	3,000	10%
Over 120	10,000	50%
Total	$ 50,000	

Required:

A- Assume that there was a credit balance of $1,735 in the Allowance for Doubtful Accounts general ledger account at December 31, 2020. Prepare the entry to write off the uncollectible accounts at December 31, 2020.

B-Prepare the appropriate adjusting entry to set up the required balance in the Allowance for Doubtful Accounts general ledger account at December 31, 2020.

Chapter (4)

Errors & Suspense Accounts

Introduction:

It is known that the basic information for the preparation and presentation of final accounts is supplied by the trial balance. Hence, the accuracy of the trial balance determines, to great extent, the accuracy of the information provided by final accounts. Nevertheless, the trial balance provides only proof of the arithmetical accuracy of the books of accounts. Trail balance simply guarantees that for every debit there is an equivalent credit entry. This means that despite an agreed trial balance, it is not necessary that there are no errors in the books of accounts. For instance, if a transaction is not at all recorded in the books of accounts cannot be termed as accurate.

Anyway, if the two sides of the trial balance do not agree, it is a sharp proof of this fact that there are certain errors in the books of accounts. Thus, errors may be there may be there in recording, classifying and summarizing the financial transactions, whether the trial balance tallies or not.

Classification of errors:

In practice, errors can broadly be classified into the following common categories:

1-Errors of Omission

2-Errors of Commission

3-Errors of Principle

4-Compensating Errors

1-Errors of Omission

Errors of Omission are incurred in those cases when a transaction is completely omitted or deleted from the books of accounts. In other words, this type of errors happens when a transaction is not recorded in the books of original entry. For example, if a purchase of goods or fixed assets on credits from Ramadan has not at all been recorded in the books of accounts, such an error will be termed as an error of omission.

As, there has been neither a debit entry nor a credit entry, therefore, the two sides of the trail balance will not be at all affected because of this error. Accordingly, such errors cannot be located out very easily. Such errors come to the attention when statement of accounts are received from or sent to creditors or debtors.

2-Errors of Commission

Errors of commission include errors resulting from wrong balancing of an account, wrong posting, wrong carry forwards, wrong totaling and so on. For example, if a sum of 1000 received from Ramadan is credited to his account as 10000, this is an error of commission. Similarly, if the total of debit side of an account is carried forward from one page to another and the mistake is committed in such carry forward (for example, total of $886 is carried forward as $688), such an error is an error of commission. Errors of commission affect the agreement of the trial balance and, therefore, their location is easier.

On the other hand, some types of errors of commission do not cause a trial balance to disagree. This refers to when a transaction has been entered on both sides of the ledgers and in the correct class/type of account but one of the entries is in the wrong account. For example, stationery has been entered in the purchases account in error, or cheques posted to the wrong personal account.

3-Errors of Principle

Errors of Principle are committed in those cases where a proper distinction between revenue and capital items is not made. A capital expenditure is taken as a revenue expenditure or vice versa. Similarly, a capital receipt may have been taken as a revenue receipt. For example, a sale of old car of

$15000 should be credited to the car account, but if it is credited to sales account, it will be termed as an error of principle. Sale of old car is a capital receipt and if it is credited to sales account, it has taken as a revenue receipt. Such errors by themselves do not affect the agreement of the trial. Therefore, they also are difficult to be located.

4-Compensating Errors

Compensating Errors, as the name indicates, are those errors which compensate each other. For instance, if a sale of $10000 to Mohamed is debited as only of $1000 to his account, while a sale of $1000 to Adel is debited as $10000 to his account, it is a compensating error. These errors also do not affect the agreement of the trial balance and, accordingly, their location is also difficult.

From the above presentation of errors, it is appeared that errors of omission, errors of principle and compensating errors by themselves alone do not affect the agreement of the trial balance. In case these errors get combined with errors of commission , they may affect the agreement of the trial balance. For example, if a sale of old car of $15000 is credited to Sales Account only as $1500, the error combines in itself both an error of principle as well as error of commission. Therefore, such error will cause the trial balance to dis agree.

Location of Errors

Logically, location of an error will depend upon the type of such error. For example, location of an errors of principle, errors of compensating nature and errors of omission is slightly difficult. The reason is that such errors do not affect the balance or agreement of the trial balance. Accordingly, the location of such errors may be considerably delayed. On the other hand, location (discovery) of errors of commission is relatively easier because they affect the agreement of the trial balance. Therefore, the errors can be classified into two categories from the point of view of locating them:

-Errors which do not affect the agreement of the trial balance.

-Errors which affect the agreement of the trial balance.

-Errors which do not affect the agreement of the trial balance

Errors of omission, errors of commission and errors of compensating nature by themselves don't affect the agreement of the trial balance. Hence, their location is a difficult process. They are usually discovered or found out when statement of accounts are received by the business or sent to the customers or during the process of internal or external audit and sometimes by chance. For instance, if a credit purchase of $5000 from Ramsey has not been recorded in the accounting records, the error will not affect the agreement of the trial balance, and therefore, at the time of finalizing the accounts it may not be found out.

Nevertheless, this will be traced out when a statement of account is sent to Ramsey showing the money due to him or when a statement of account is received from Ramsey showing the money recoverable by him. When these errors are found they have to be corrected. The entries have to be made in the double entry accounts. Furthermore, an entry should be made in the journal, to explain the correction.

In the following sections, an example will be given for each type of error.

1-Error of omission

The sale of goods, \$2000 to Sandra, has been completely omitted from the books. This error must be corrected by entering the sale in the books by the following Journal entry:

The journal

	Dr	Cr
Sandra a/c Sales a/c Correction of omission of sales invoice No….. from sales journal	\$2000	 \$2000

2-Error of commission

A purchase of goods, \$1500 from Samira, was entered in error in samar's account. To correct this, it must be cancelled out of Samar's account, and then entered where it should be in Samira's account. The double entry will be:

The journal

	Dr	Cr
Samar a/c Samira a/c Purchase invoice No….. entered in wrong personal account	$1500	 $1500

3-Error of principle

The purchase of a machine, $20000, is debited to Purchase account instead of being debited to Machinery account. We therefore cancel the item out of the purchase account by crediting that account. It is then entered where it should be debiting the Machinery account.

The journal

	Dr	Cr
Machinery account Purchase account Correction of error: purchase of fixed asset debited to purchases account	$20000	 $20000

4-Compensating error

The sales account is overcast by $4000, as also is the wages account. The trial balance therefore still "balances". This assumes that these are the only two errors found in the books.

The journal

	Dr	Cr
Sales a/c Wages a/c Correction of overcasts of 4000 each in the sales account and the wages account which compensating for each other	$4000	 $4000

5-Error of original entry

Where the original figure is incorrect, yet double entry is still observed using this incorrect figure. An example of this could be where there were sales of 5000 goods but an error is made in calculating the sales invoice. If it were calculated as $3500, and $3500 were credited as sales and $3500 were debited to the personal account of the customer Ahmed, the trial balance would still "balance".

The journal

	Dr	Cr
Ahmed a/c Sales a/c Correction of error whereby sales were understated by $1500	$1500	 $1500

6-Complete reversal of entries

Where the correct accounts are used but each item is shown on the wrong side of the account. Suppose we had paid a check to Walled for $3000, the double entry of which is Cr Bank $3000, Dr Walled $3000. In error it is entered as Cr Walled $3000, Dr Bank $3000. The trial balance totals will still agree. This is somewhat more difficult to adjust. First must come the amount needed to cancel the error, then comes the actual entry itself. Because of this, the correcting entry is double the actual amount first recorded.

The journal

	Dr	Cr
Walled a/c Bank a/c Payment of check3000 debited to bank and credited to Walled in error	6000	 6000

-Errors which affect the agreement of the trial balance

Normally, such errors are easy to be discovered because they are caught at an early stage. Once the trial balance does not tally, the accountant can start to find out these errors. These errors could be as a result of the following:

-incorrect additions in any account.

-making an entry on only one side of the accounts, a debit but no credit; a credit but no debit.

-entering a different amount on the debit side from the amount on the credit side.

The procedures which will be followed for locating of such errors may be as below:

1- the difference of the two sides of the trail balance should be found out. The amount should then be divided by two. The two sides of the trial balance should then be checked to find out if there is an amount equal to that figure. It is possible that the amount may have been placed to a wrong side resulting in difference in the totals of the trial balance. For instance, if the total of the debit side of the trial balance is $9000 more than the credit side of the trial balance, $9000 should be divided by 2, thus giving a figure of $4500. The debit side should then be checked to find out if there is an amount of $4500 appearing on that side. If it is so, it should be seen whether the amount has been correctly put to that side or it should have gone to the credit side.

2-if the mistake is not found out by taking step No. 1, the difference should be divided by 9. If the difference is completely divisible, it can be an error of transposition of figures. For example, if the figure of $698 is written as $896, the difference is of $198. This figure is completely divisible by 9. Thus it can be concluded that in such cases where the difference is divisible by 9, there can be a probability of this type of error.

3-in case, the difference is still not traceable; the following further possibilities should be checked:

(a) If the difference is in a round figure, there is a possibility of wrong summing or wrong carry forwards of the totals of a subsidiary book or there is an error in balancing the accounts.

(b) In case, the difference is not in a round figure, there is a possibility of error being committed in posting the transactions from the journal to the ledger.

(c) If the difference is of a substantial amount, it will be appropriate to compare the trail balance of the current year with the trail balance of the last year and see whether there is any abnormal difference between the balances of important accounts of the two trial balances.

4- since cash and bank accounts are not maintained usually in the ledger, it will be also advisable to check whether the balances of the cash and bank accounts have been taken in the trial balance or not.

5- The schedules of sundry debtors and sundry creditors should be checked to find out whether all balances of debtors and creditors have been included in these schedules or not.

6- the totals of the subsidiary books such as the Sales Book, purchases Book should be checked and it should be seen whether posting has been done from these two books correctly to Sales, Purchases or other accounts as the case might be.

7- if the error is still not traceable, check thoroughly the books of original entry and their posting into the ledger and finally the balancing of different accounts.

8-an organization may keep ledgers on sectional/self balancing system. In such a case, there are three ledgers: a-Sales ledger containing personal accounts of all trade debtors, b- Purchases ledger containing personal accounts of all trade creditors, and c-general ledger containing all other real, nominal and personal accounts except those of trade debtors and trade creditors. nevertheless, there will be two total accounts in this ledger :a- total debtors account, and b-total creditors account. The balance of the Total Debtors Account should agree with the total of the schedule of Debtors as prepared from the Sales

Ledger. Similarly, the balance of the Total Creditors Account should agree with the total of the schedule of Creditors as prepared from the Purchases Ledger. To this point, in case the balance of Total Debtors Account does not tally with the total of the schedule of Debtors, the personal accounts in the sales ledger should be checked and the other ledger may not be touched. Regarding the Total Creditors Account and the schedule of Total creditors, same is true.

-Suspense Accounts and Errors:

The accountant should take the above mentioned steps one after the other to locate the difference in the totals of the trial balance. However, many errors will mean that trial balance totals will not be equal. In case the accountant is not in a position to determine the difference and he/she is in a hurry to close the books of accounts, he/she may transfer the difference to an account known as "Suspense Account". Accordingly, Suspense Account is an Account to which the difference in the trial balance has been put temporarily.

When the errors are located in the beginning or during the operations of the following year, appropriate accounting entries are done and the Suspense Account is closed. On the other hand, it should be considered that Suspense account should be opened by the accountant only when failing to find out the errors in spite of doing the best efforts.

Note: you will often notice the use of the expression 'to cast', which means 'to add up'. Overcasting means incorrectly adding up a column of figures to give an answer which is greater than it should be Undercasting means incorrectly adding up a column of figures to give an answer which is less than it should be.

It should be tried very hard to find errors immediately when the trial balance totals are not equal. When they cannot be found, the trial balance totals should be made to agree with each other by inserting the amount of the difference between the two sides in a Suspense account. This could be shown as below, where there is $500 difference.

Trial Balance as on 31 December2021

	Dr	Cr
Totals after all accounts have been listed	$200000	$199500
Suspense account		$500

To make the two totals agree, a figure of $500 for the suspense account has been shown on the credit side. A suspense account is opened and the $500 difference is also shown there on the credit side.

Suspense Account

		Difference per Trial	$500

1- Suspense Account and the Balance Sheet

If the errors are not located before the final accounts are prepared, the suspense account balance will be included in the balance sheet. Where the balance is credit balance, it should be included on the capital and liabilities side of the balance sheet. When the balance is a debit balance it should be shown on the assets side of the balance sheet.

2- Correction of errors

When the errors are found they must be corrected, using double entry. Each correction must also have an entry in the journal describing it.

Examples relating to one error only:

Example1: Assume that the error of $500 as shown above is found in the following year on 31 March 2021. The error was that the sales account was undercast by $500. The action taken to correct this is:

Debit suspense account to close it:$500

Credit sales account to show item where it should have been:$500.

The accounts now appear as below.

Suspense Account

2021 Mar 31 Sales	 $500	2020 Dec 31 Difference per trial balance	 $500

Sales Account

		Mar 31 Suspense account	 $500

This can be presented in journal entry from as:

	Dr	Cr
Suspense a/c Sales Correction of undercast of sales by 500 in last year's accounts	$500	 $500

Example 2: Trial balance on 31 December 2020 had a difference of $1000. It was a shortage on the debit side.

A suspense account is opened; the difference of $1000 is entered on the debit side. On May 2021 the error was found. We had made a payment of $1000 to Mahmoud to close his account. It was correctly entered in the cash book, but it was not entered in Mahmoud's account.

First of all, (a) the account of Mahmoud is $1000, as it should have been in 2020. Second (b) the suspense account is credited with $1000 so that the account can be closed.

Suspense Account

2020 May 31 Difference per trial balance	<u>$1000</u>	2021 May 31 Mahmoud	<u>$1000</u>

Mahmoud Account

2021 May31 Suspense a/c	$1000	2021 Jan 1 Balance b/d	$1000

This can be shown in the journal entry from as:

	Dr	Cr
Mahmoud a/c Suspense a/c Correction of non-entry of payment last year in Mahmoud's account.	$1000	 $1000

Examples relating to more than one error:

Example 3 in this example, the suspense account was caused by more than one error. The trial balance at 31 December 2019 showed a difference of $7700, being a shortage on the debit side. A suspense account is opened, and the difference of $7700 is entered on the debit side of the account.

On 31 March 2020 all the errors from the previous year were found.

1- A check of $15000 paid to Kamal had been correctly entered in the cash book, but had not been entered in Kamal's account.

2- The purchases account had been undercast by $2000.

3- A check of $9300 received from Sabry had been correctly entered in the cash book, but had not been entered in Sabry's account.

These three errors resulted in a net error of $7700, shown by a debit of $7700 on the debit side of the suspense account. These are corrected as follow:

(a) Make correcting entries in accounts for 1, 2 and 3.

(b) Record double entry for these items in the suspense account.

Kamal Account

2020 March 31 Suspense a/c	$15000		

Purchases Account

2020 March 31 Suspense a/c	$2000		

Sabry Account

		2020 Mar 31 suspense a/c	$9300

Suspense Account

2020 Jan 1 Balance b/d Mar 31 Sabry **3**	 7700 9300 $17000	2020 Mar 31 Kamal **1** Mar 31 Purchases **2**	 15000 2000 $17000

These can be shown in the journal entry from as:

The journal

		Dr	Cr
Mar 31	Kamal a/c Suspense a/c Check paid omitted from Kamal's account	$15000	 $15000
Mar 31	Purchases a/c Suspense a/c Undercasting of purchase by 2000 in last year's accounts	$2000	 $2000
Mar 31	Suspense a/c Sabry a/c Ckeck received omitted from Sabry's account	$9300	 $9300

Only those errors which make the trial balance totals different from each other have to be corrected via the suspense account.

Example 4: A sale of $500 to karim was entered in the sales book as of $5000, from where he was debited by $50000. This is a multiple type of error. It affects more than two accounts. The accounts involved are (a) Karim, (b) Sales Account, and(c) Suspense Account.

The total of the sales book is posted to the sales Account. The sales has been recorded as of $5000 in the sales book; from where the posting must have been done to sales account. Thus, the sales Account has been credited by $5000 instead of $500. It has been credited more by $4500. In order to rectify the error, it should, therefore, be debited by 4500. The account of Karim should have been debited by $500 only but it has been debited by $50000. It has, therefore, been debited more by $49500. In order to rectify the matters, it should be credited by $49500. These two errors must have created difference in the trial balance which should have gone to the suspense account.

Sales account comes on the credit side of the trial balance. It has been credited by $4500 more and, therefore, the credit side of the trial balance will be more by this amount on account of this error. On the other hand, karim is a debtor, his account his account has been excess debited by $49500. The debit side of the trial balance should, therefore, be more by this amount.

The net effect is that the debit side of the trial balance must have been more by $45000 which must have been put to the suspense account by giving credit to it. The rectifying entry will therefore be as follows:

The journal

	Dr	Cr
Suspense a/c	45000	
Sales a/c	4500	
Karim a/c		49500

Thus, on the basis of the above examples, the following rules can be formed out:

a-Find out the accounts affected by error.

b- Find out what should have been done and what has been done.

c- Credit or debit the respective account in order to set the matters right.

d- Put the differences to suspense account.

Examples 5:

A sale of $10000 to Sarah was entered in the purchases book from where the account of Sarah was debited by $1000.

The preceding error affects the following accounts: (a) Sales Account, (b) Purchases Account, and (c) Account of Sarah.

Sales account should have been credited by a sum of $10000. It has not been done since it has been recorded in the Purchases Book. Accordingly, sales account should be credited- what should have been done.

Purchases account has been debited since the transaction has been entered in the purchases book from where it must have been posted to the purchases account. It has been debited by a sum of $10000 unnecessarily. It should, therefore, be credited to remedy what has been done wrongly.

Account of Sarah should have been debited by $10000. In the normal course, since the transaction has been recorded in the purchase book, his account should have been credited.

However, the accountant has debited his account by $1000 instead of $10000. His account should therefore be debited by $9000 more in order to give full debit to his account.

The difference, if any, should be transferred to suspense account as given in the rule d. presented above. The rectifying journal entry will be as follows:

The journal

	Dr	Cr
Suspense a/c	$11000	
Sarah a/c	$9000	
Purchase a/c		$10000
Sales a/c		$10000

Comprehensive illustration 1

The trial balance of ElRada on 31 December 2020 showed a difference of $5800(excess debit). It was put a suspense account and the books were closed. On going through the books in January 2021, following errors were located. You are required to pass appropriate correcting journal entries and prepare the Suspense Account.

1-$5400 received from Maher was posted to the debit side of his account.

2-$1000 being purchases returns was posted to the debit side of Purchases Account.

3-$2000 discount received, entered in the cash book was not posted to the ledger.

4-$5740paid for repairs to motor-car was debited to motor-car account as$1740.

5-A sale of $3500 to Suzy was entered in the Sales Book as of $5300.

6-while carrying forward total of one page in Sami's Account, the amount of $2500 was written on the credit side instead of debit side.

7- The purchase of machinery on the first of January 2020 for $60000 was entered in the Purchase Account.

The journal

	Dr	Cr
Suspense a/c Maher a/c	$10800	 $10800
Suspense a/c Purchases a/c Purchase returns a/c	$2000	 $1000 $1000
Suspense a/c Discount received a/c	$2000	 $2000
Repairs a/c Motor car a/c Suspense a/c	$5740	 $1740 $4000
Sales a/c Suzy a/c	$1800	 $1800
Sami a/c Suspense a/c	$5000	 $5000
Machinery a/c Purchases a/c	$60000	 $60000

Suspense Account

Maher a/c Purchases a/c Purchases returns Discount a/c	10800 1000 1000 2000	Balance b/d Repairs a/c Sami a/c	5800 4000 5000
	$14800		$14800

Note: while passing the rectifying journal entries, you should put the difference to the suspense account, in case it has been opened and no other account is available.

Comprehensive illustration 2

The trial balance of KLM did not agree. A Suspense Account was opened with the amount of the difference; the following errors were discovered on scrutiny.

1-the addition of the analysis column on the tabular purchase journal posted to Goods Purchased for Resale Account was found to be short by $1500 although the addition of the total column was correct.

2- A dishonored bills credited to Bank Account for collection of bills and debited to Bills Receivable Account. A check was later received from the customer for $4000 and was dully paid into the firm's bank account.

3-an amount of $4500 treated as paid in advance on account of insurance in the previous year was not brought forward.

4-Sales on approval amounting to $20000 were included in the Sales Account. Half of these were returned but no entries were passed in respect of these. However, the returned goods have included in the closing stock at their cost price of $5000.

5-of the total amount of $282560 shown as sundry debtors, $12600 represent credits given to customers when the payments against sales invoices were received. However, these invoices themselves were not entered in the books. A discount of 10% is allowed on the selling price in all such invoices.

Required: pass rectifying entries making use of the Suspense Account, wherever necessary.

The journal

	Dr L.E	Cr L.E
Purchases for resale a/c Suspense a/c	$1500	 $1500
Customer's a/c Bills receivable a/c	$4000	 $4000
Insurance a/c Suspense a/c	$4500	 $4500
Sales a/c Customer's a/c	$10000	 $10000
Discount a/c Customer's a/c Sales a/c	$1400 $12600	 $14000

*payment being equal to 90%, the gross sale is $14000(12600x 100/90).

5- The Effect of Errors in profits

Some of the errors will have meant that original profits calculated will be wrong. Other errors will have no effect upon profits. Errors committed in a year may affect the profit of that year. This happens when the error relates to such accounts which are taken into account while computing gross or net profit of the business.

In other words, if the errors related to such accounts which find their place in the Trading Account or the Profit and Loss Account, the errors will affect the profit of the business. For instance, errors involving Purchases Account, Sales Account, Expense Account, and Income Account will all affect the profit of the business.

In case on account of errors such accounts are either not debited or unnecessarily credited, this will result in increase in profit of the business. For example, if repairs of machinery amounting to $5000 have been debited to Machinery Account by mistake, the net profit will increase by $5000.

Similarly, if on account of such errors such accounts are unnecessarily debited or are not unnecessarily credited, the errors will decrease the net profit of the firm. For instance, if a sale of $1000 is recorded in the books as only a sale of $100, it will result in reducing the net profit of the business by $900. The following illustration will clear and explain the matters.

Comprehensive illustration 3

Using the information presented in illustration1, compute the effects:

(1) On profit for the year 2020 of the errors committed, and

(2) On profit of 2021 of the errors being corrected.

Solution:

Effect of Errors on profit of 2020

	Increase (+)L.E	Decrease (-) L.E
1- No effect on profit since no account relates to trading or profit &loss account	----	----
2- The net profit will decrease by 2000 because both the purchases and sales account relate to trading account.		2000
3- The net profit will decrease by 2000 since the account not credited relates to profit& loss account.		2000

4- The net profit will increase by 5740 since the account not debited relates to profit & loss account.	5740	
5-The net profit will increase by 1800, since excess credit has been given to an account which relates to trading account.	1800	
6-No effect on profit since no account relates to trading or profit& loss account	-----	-----
7- The net profit will decrease by 60000; since the account given unnecessarily debit relates to trading account.		60000
	7540	64000

Accordingly, on the whole, the net profit of the business for the year would decrease by $56460(64000-7540).

Effect of Errors on profit of 2021

	Increase (+)L.E	Decrease (-) L.E
1- No effect on profit since no account relates to trading or profit &loss account	----	----

2- The net profit would increase by 2000 sine both accounts credited relate to trading account.	2000	
3- The net profit will increase by 2000 since the account credited relates to profit &loss account.	2000	
4- The net profit will decrease by 5740 since the account debited relates to profit &loss account.		5740
5-the net profit will decrease by 1800 since the account debited relates to trading		1800
6-no effect on profit since no neither accounts relates to trading or profit &loss account	-----	-----
7- the net profit will increase by 60000; since the account credited relates to trading account.	60000	
	64000	7540

Accordingly, on account of correction of errors, the net profit of 2021 will increase by $56460.

Important note:

According to the preceding illustration, it is clear that if the net profit has decreased because of committing of errors, it will increase because of correcting those errors or vice-versa. Thus, the effect on net profit can be found out simply by preparing one statement either showing the effect of errors on net profit or showing the effect of correction of errors on net profit, if one effect is found out, the other will be just reverse of it.

Comprehensive illustration 4

On going through the trial balance of Green Business, you find that the debit is in excess by $1500. This was credited to suspense account. On a close scrutiny of the books, the following mistakes were located:

(1) The total of debit side of an expense account has been cast in excess by $500.

(2) The sales account has been totaled short by $1000.

(3) One item of purchase of $250 has been posted from the day book to ledger as $2500.

(4) The sale return of $1000 from a party has not been posted to that account, though the party's account has been credited.

(5) A check of $5000 issued to the suppliers' account (shown under sundry creditors) towards his dues has been wrongly debited to the purchases account.

(6) A credit sale of $500 has been credited to the sales and also to the sundry debtors' account.

Required:

-pass necessary journal entries for correcting the above.

-prepare the suspense account as it would appear in the ledger; and show how they affect the profits.

The journal

	Dr	Cr
Suspense a/c Expense a/c Being the mistake in totaling of an Expense Account corrected.	500	 500
Suspense a/c Sales a/c Being the mistake in totaling of Sales Account corrected.	1000	 1000
Supplier* Suspense Account Being wrong posting from the day book.	2250	 2250
Sales returns a/c Suspense a/c Being the sales return from a party not posted to sales return's account, now adjusted.	1000	 1000
Sundry creditors Purchases account Being the payment made to suppliers wrongly posted to purchases account, now corrected.	5000	 5000

Sundry debtors Suspense account Being the sales wrongly credited to customer's account, now corrected.	1000	 1000

* It has been assumed that the day-book is the purchase day book, accordingly only the supplier's account has been posted wrongly (credit of $2500 instead of $250). If, however, by day-book is meant a book in which all transactions are recorded and posted to the ledger hence it would mean that both supplier's account and purchases account are wrongly posted.

Suspense Account

Expense account	500	Difference in trial balance	1500
Sales account	1500	Sundry creditors	2250
		Sales returns a/c	1000
Balance c/d	4250	Sundry debtors	1000
	$5750		$5750

Since the suspense account does not balance, it is clear that all the errors have not been traced.

According to the preceding corrections, the net profit will stand increased by $5500 as shown below:

3-The Effect on Profit

	Increase	Decrease
Mistake in totaling in "Expenses"	500	
Mistake in totaling in "Sales"	1000	
Mistake in posting from day book to ledger under "Purchase"	5000	
Omission in posting under "Sales Returns"		1000
	6500	1000
Net Increase	5500	

Questions:

1- State whether each of the following statement is 'True' or 'False'

a- Error of omission does not affect the agreement of the trial balance.

b- Errors of principle affect the agreement of the trial balance.

c- If the two sides of the trial balance tally, the books of accounts can be taken as absolutely accurate.

d- Errors of commission are committed in those cases where proper distinction between revenue and capital items is not made.

e- All errors affect the agreement of the trial balance.

F-In case the difference of the two sides of the trial balance is divisible by 9; it can be presumed that the amount has been put on the wrong side.

2-Choose the best answer for each of the following:

(1)Sales to Ramey 3360 posted to his account as 3630 would affect:

a-Sales Account

b- Ramey's Account

c-Cash Account

(2)Sales to Ramey of 5000 not recorded in the books would affect:

a- Sales Account

b-Ramey's Account

c-A&B

(3)Carriage charges paid for a new plant purchase if debited to carriage account would affect:

a-Plant Account

b-Carriage Account

c-Plant and Carriage Account

(4) A sale of 1000 to X recorded in the Purchase book would affect:

a- Sales Account

b- Purchase Account

c- Sales Account, Purchase Account and X's Account.

(5) A purchases returns of 2000 to A if entered in the sales book would affect:

a- A's Account

b- Purchases returns Account

c- Sales Account

d- Purchases returns Account and Sales Account

(6) An amount of 2000 received from X credited to Y would affect:

a-Accounts of X and Y

b- Cash Account

c-Y's Account

(7) A sum of 2000 written off as bad debt now received credited to the account of the debtor would:

a- Increase the net the profit by 2000

b- Decrease the profit by 2000

c- No effect on profit

(8) Goods purchased from A for 20000 through the sales book. The correction of error will result in:

a- Increase of gross profit

b- Decrease of gross profit

c- No effect on gross profit

3-Write out the journal entries to correct the following errors using suspense account:

(1) The total of "discount allowed" from the cash book for the month of Dec 2020 amounting to $3500 was not posted.

(2) An amount of $1750 entered in the sales returns book has been posted to the debit of Ronaldo who returned the goods.

(3) Bad debts aggregating $2500 were written off during the year in the sales ledger but were not adjusted in the general ledger.

(4) Goods of the value of $5000 returned by Sarah were entered in the sales day book and posted therefrom to the credit of his account.

(5) A sales of $8000 made to Peter was correctly entered in the sales day book but wrongly posted to the debit of Armando as $800.

4- In 2022 Adam found that his books for the year 2021 contained some errors in spite of an agreed trial balance. The errors were:

(1) An invoice for $500 for goods purchased from Hamza was entered in sales returns book; in the ledger, this was debited to the account of Hamza.

(2) Goods bought on credit from Ali for $1500 were entered in the sales book as $1050 Ali's account was credited with this amount of $1050.

(3) The sales book for the month of April 2021 was overcast by $1500.

(4) A sale of $2570 to Salma was entered in the sales book as $5270. Salma was debited with $7520.

(5) 790 paid for freight on machinery was debited to freight account as $970.

Required:

-give journal entries to correct the errors using a suspense account where is necessary.

5- State which of the following errors will affect the agreement of the trial balance and which will not. Give correcting journal entries wherever relevant assuming the difference in trial balance has been placed to suspense account.

(1) Purchase of a second- hand Motor Car for $150000 has been debited to motor car maintenance account.

(2) A sale of $50000 to Sharkawi has been wrongly entered in the sales day book as $5000.

(3) An entry in the purchases returns book of $20000 has been omitted to be posted in the account of Sheri, the supplier.

(4) An amount of $20000 received from sheriff has been posted to the credit of Shereem as $2000.

(5) The total of the sales day book for month of July, $1500000 has been omitted to be posted in the ledger.

6- An accountant could not tally the trial balance. The difference was temporarily placed to suspense account for preparing the final accounts. The following errors were later discovered.

(a) The sales book was undercast by $500.

(b) Entertainment expenses of $950, although entered in the cash book were omitted to be posted in the ledger.

(c) Discount column of the receipt side of the cash book was wrongly added as $1400 instead of $1200.

(d) Commission $250 paid, was posted twice, once to discount account and once to commission account.

(e) A sale of $1390 to Radwan though correctly entered in the sales book was posted wrongly to his account as $1930.

(f) A purchase from Nor Alden of $920 although correctly entered in purchase book, was wrongly debited to his personal account.

Required:

-pass the necessary rectifying journal entries.

-prepare suspense account.

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