Accounting

Account Receivable Presentation

Accounting for Receivables

- A receivable is a company's claims for money, goods, or services.
- An account receivable is classified as a current asset representing money due for services performed or merchandise sold on credit.
- When an account becomes uncollectible, a bad debt expense is incurred.

- الذمم المدينة هي مطالبات الشركة بالمال أو البضائع أو الخدمات
- يتم تصنيف الحساب المدين على أنه أصل متداول يمثل الأموال المستحقة مقابل الخدمات المؤداة أو البضائع المباعة بالائتمان
- عندما يصبح الحساب غير قابل للتحصيل ، يتم تكبد نفقات الديون المعدومة

Accounts Receivables

- Most common transaction creating a receivable is selling merchandise or services on account (on credit)
- Receivables are recorded as debit to Accounts Receivable
- **Accounts receivables** are normally collected within a short period, such as 30 or 60 days
- They are classified on balance sheet as current assets

- أكثر المعاملات شيوعًا التي تنشئ مستحقًا هي بيع البضائع أو الخدمات على الحساب (بالدين)
- يتم تسجيل الذمم المدينة كخصم على حساب مدينة
- عادةً ما يتم تحصيل الذمم المدينة في غضون فترة قصيرة مثل 30أو 60يومًا
- يتم تصنيفها في الميزانية العمومية كأصول متداولة

For Example:

Assume merchandise is sold on account for $1,000. The terms of the agreement were 2/10, n/30. The entries are as follows:

Accounts Receivable	1,000	
Sales Revenue		1,000

Notes Receivables

- **Notes receivable** are amounts customers owe for which a formal, written instrument of credit has been issued
- Notes receivable expected to be collected within a year are classified on balance sheet as a current asset
- Notes often used for credit periods more than 60 days
- Notes may be used to settle a customer's accounts receivable

- الإيضاحات المستحقة القبض هي المبالغ التي يدين بها العملاء والتي تم إصدار أدوات ائتمان رسمية مكتوبة بشأنها
- يتم تصنيف الذمم المدينة المتوقع تحصيلها خلال سنة في الميزانية العمومية كأصل متداول
- غالبًا ما تستخدم الملاحظات لفترات ائتمانية تزيد عن 60يومًا
- يمكن استخدام الملاحظات لتسوية حسابات العملاء

Notes Receivable

- Note receivable, or promissory note, is written document containing promise to pay face amount, usually with interest, on demand or at date in future
- By signing a note, debtor recognizes debt and agrees to pay it according to its terms
- A note is a stronger legal claim over an account receivable

- الكمبيالات المستحقة القبض ، أو السندات الإذنية ، هي مستند مكتوب يحتوي على تعهد بدفع المبلغ الاسمي ، عادة مع الفائدة ، عند الطلب أو في تاريخ في المستقبل
- من خلال التوقيع على مذكرة ، يعترف المدين بالدين ويوافق على سداده وفقًا لشروطه
- الكمبيالات هي مطالبة قانونية أقوى على حساب مستحق

Characteristics of Promissory Note

1. *Maker* is party making promise to pay
2. *Payee* is party to whom note is payable.
3. *Face amount* is amount for which the note is written for
4. *Issuance date* is date note is issued.
5. *Due date* or *maturity date* is date note is to be paid.
6. *Term* of a note is amount of time between issuance and due dates.
7. *Interest rate* is rate of interest that must be paid on face amount for term of the note.

- *المحرر* هو شخص يتعهد بالدفع
- *المدفوع لأمره* هو الطرف الذي تدفع له السند
- *المبلغ الاسمي* هو المبلغ الذي تمت كتابة الملاحظة من أجله
- *تاريخ الإصدار* هو تاريخ إصدار السند
- *تاريخ الاستحقاق* هو التاريخ الذي يجب دفع المبلغ الوارد في السند
- *شرط السند* هو مقدار الوقت بين تاريخ الإصدار والاستحقاق
- *معدل الفائدة* هو معدل الفائدة الذي يجب دفعه على المبلغ الاسمي لمدة السند

Accounting for Notes Receivable

- Promissory note may be received by company from a customer to replace an account receivable. The promissory note is recorded as a note receivable
  - For example, a company accepts a 30-day, 12% note dated November 21, 2016, in settlement of the account of W. A. Bunn Co., which is past due and has a balance of $6,000. The company records the receipt of the note as follows:

	Nov.	21	Notes Receivable—W. A. Bunn Co.		6,000	
			Accounts Receivable—W. A. Bunn Co.			6,000

Accounting for Notes Receivable (cont.)

- At the due date, the company records the receipt of $6,060 ($6,000 face amount plus $60 interest) as follows:

Dec.	21	Cash	6,060	
		Notes Receivable—W. A. Bunn Co.		6,000
		Interest Revenue		60
		[$6,060 = $6,000 + ($6,000 × 12% × 30 ÷ 360)].		

Other Receivables

- Other receivables include:
  - Interest receivable
  - Taxes receivable
  - Receivables from officers or employees
- Other receivables reported separately on balance sheet
  - If expected to be collected within one year, classified as current assets.
  - If collection expected beyond one year, classified as noncurrent assets and reported under the caption Investments.

Uncollectible Receivables

- When selling merchandise or services on account (on credit), some customers will not pay
- Some accounts receivable will be uncollectible
- Companies may receivables, called *factoring the receivables*
- Operating expense recorded from uncollectible receivables is called **bad debt expense**, uncollectible accounts expense, or doubtful accounts expense

- عند بيع البضائع أو الخدمات على الحساب ، لن يدفع بعض العملاء
- لن يتم تحصيل بعض الحسابات المستحقة القبض
- نفقات التشغيل المسجلة من الذمم المدينة غير القابلة للتحصيل تسمى مصاريف الديون المعدومة

Thank you for listening

Accounting in English 2

Lecture 1

Accounting for property plant and equipment

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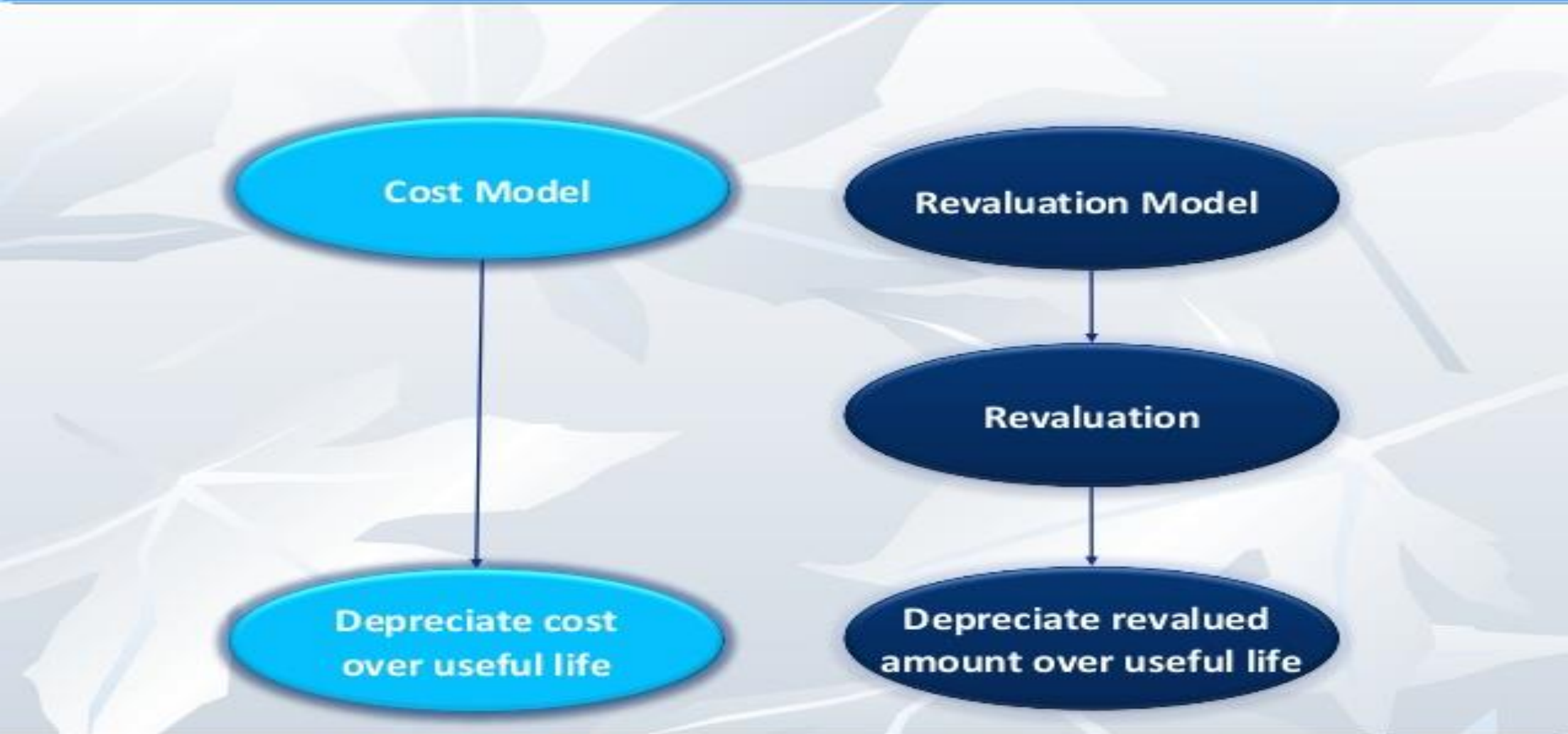
Objectives:

- Timing of the recognition of assets
- Determination of assets carrying amounts using both the cost model and the revaluation model
- Depreciation charges and impairment losses to be recognized
- Disclosure requirements

- توقيت الاعتراف بالأصول
- تحديد القيم الدفترية للأصول باستخدام كل من نموذج التكلفة ونموذج إعادة التقييم
- يتم الاعتراف بمصروفات الاستهلاك والانخفاض في القيمة
- متطلبات الافصاح

Subsequent Measurement



Scope of the standard:

This standard applies in the accounting for elements of tangible fixed assets, except when another International Accounting Standard requires or permits a different accounting treatment.

يطبق هذا المعيار في المحاسبة عن عناصر الأصول الثابتة الملموسة ، إلا عندما يتطلب معيار محاسبة دولي آخر أو يسمح بمعالجة محاسبية مختلفة .

Scope of the standard:

This standard does not apply to-

- Property ,plant & equipment that is for sale
- Biological assets related to agricultural activity
- Mineral rights and mineral reserves

- الممتلكات والآلات والمعدات المعروضة للبيع
- الأصول البيولوجية المتعلقة بالنشاط الزراعي
- الحقوق المعدنية والمحميات المعدنية

Definition : Property, plant & Equipment (PPE)

Property Plant and Equipment defines Property Plant and Equipment as tangible assets that-

1) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and

محتفظ بها للاستخدام في إنتاج أو توريد سلع أو خدمات لتأجيرها للآخرين أو لأغراض إدارية

2) are expected to be utilized in more than one period.

من المتوقع أن يتم استخدامها في أكثر من فترة

Other important definitions:

Cost:

Cost is the amount of cash or cash equivalent paid to acquire an asset at the time of its acquisition and construction.

الكلفة

التكلفة هي المبلغ النقدي أو المعادل النقدي المدفوع للحصول على أصل في وقت اقتنائه وبنائه

Fair Value:

Fair value represents the present market price of an asset.

القيمة العادلة

تمثل القيمة العادلة سعر السوق الحالي للأصل

Other important definitions:

Carrying amount:

Carrying amount is the amount at which an asset is recognized after deducting any accumulated depreciation or losses.

القيمة الدفترية: المبلغ الذي يتم الاعتراف به بأصل بعد خصم أي استهلاك أو خسائر متراكمة

Formula:

Carrying amount = Acquisition cost – Accumulated depreciation

Carrying amount = at cost – accumulated depreciation – accumulated impairment

Carrying amount = Fair value – subsequent accumulated depreciation – subsequent accumulated impairment

The cost of Property, Plant & Equipment shall be recognized as an asset if, and only if:

a) It is probable that future economic benefits associated with the item will flow to the entity; and

b) The cost of the item can be measured reliably.

Depreciation :

Depreciation : الاستهلاك هو طريقة محاسبية لتخصيص تكلفة الأصل المادي أو المادي على مدى عمره الإنتاجي أو متوسط العمر المتوقع

Depreciation is an accounting method of allocating the cost of a tangible or physical asset over its useful life or life expectancy

Residual value :

القيمة المتبقية وتعرف أيضًا باسم قيمة الإنقاذ ، وهي القيمة المقدرة للأصل الثابت في نهاية مدة عقد الإيجار أو العمر الإنتاجي

also known as salvage **value**, is the estimated **value** of a fixed asset at the end of its lease term or useful life.

Depreciable amount :

Depreciable amount is the cost of an asset or the amount that has replaced it, less its residual value.

المبلغ القابل للاستهلاك هو تكلفة الأصل أو أي مبلغ آخر يتم استبداله بالتكلفة (في البيانات المالية) مطروحًا منه قيمته المتبقية.

Depreciation methods:

1.Straight line method

2. Sum of the years digits method

3. Double declining balance method

4. Units of production method

Straight line depreciation method :

- Assumes uniform consumption pattern of economic benefits
- The depreciation expense:

$$\frac{\text{Depreciable amount}}{\text{Estimated useful life}} = \text{Depreciation expense}$$

* Depreciable amount = Cost – Salvage Value

Double declining method :

- Double declining depreciation rate is a fixed percentage which is equal to double of the straight line rate.

- If the straight line rate is 20% then twice of the straight line rate would be 40% that is double declining rate.

Units of production method :

- Units of production method measures the amount of depreciation dividing the total estimated units by total estimated hours.

- Here the total estimated hours is identified by subtracting salvage value from cost multiplying specific working hours.

$$\frac{\text{(Cost – Salvage value) X Hours this year}}{\text{Total estimated hours}} = \text{Depreciation charge}$$

Impairment : Definition

An impairment is the amount by which the carrying amount of an asset exceeds its recoverable amount. Recoverable amount is the higher of an asset's net selling price and its value in use.

الانخفاض في القيمة هو المبلغ الذي تتجاوز به القيمة الدفترية للأصل قيمته القابلة للاسترداد. المبلغ القابل للاسترداد هو صافي سعر بيع الأصول وقيمته في الاستخدام ، أيهما أعلى

When impairment occurs-

- Significant decrease in the market value of an asset
- Significant changes in the usage of an asset
- The significant adverse effects of climate change in the value of an asset

- انخفاض كبير في القيمة السوقية للأصل
- تغييرات كبيرة في استخدام الأصل
- الآثار السلبية الكبيرة للتغيرات المناخية في قيمة الأصول

Example 1: Baghdad company acquires real estate at a cash cost of ID100000. The property contains an old warehouse the cost of removing it is of ID 6000, additional expenditures are the attorney's fee, ID 1000, and the real estate broker's Commission ID 8000. The cost of the land is ID115000, computed as shown below.

Illustration;

Cash price of property	ID 100000
Net removal cost of warehouse	6000
Attorney's fee	1000
Real estate broker's commission	8000
Total cost	ID 115000

The company records the following entry of acquisition

Land	115000	
Cash/Accounts Payable		115000

To record acquisition of land at cost ID 115000

Example 2: assume that Baghdad Company purchases factory machinery at a cash price of ID 50000. Related expenditures are for sales taxes ID 3000, insurance during shipping ID 500, and installation and testing ID 1000.

The cost of the factory machinery is ID 54500 as shown in the following illustration;

Illustration:

Cash price	ID 50000
Sales taxes	3000
Insurance during shipping	500
Installation and testing	100
Cost of factory machinery	*ID 54500*

And the company records the following entry

Equipment	54500	
Cash		54500

To record factory machinery at total cost of ID 54500

Example 3:

On July 1, 2012, Baghdad Company sells Equipment for ID16000 cash. The Equipment originally cost ID 60 000. As of January 1, 2012, it had accumulated depreciation of ID 41000. Depreciation for the first six months of 2012 is ID 8 000.

Instruction:

Record the journal entries of the above transaction.

Solution:

July 1	Depreciation Expense	8 000	
	Accumulated Depreciation—Equipment		8 000

(To record depreciation expense for the first 6 months of 2012)

Cost of Equipment ID 60000	
Less: Accumulated depreciation (ID41 000 1 ID8 000)	49 000
Book value at date of disposal	11000
Proceeds from sale	16 000
Gain on disposal of plant asset	ID 5 000

July 1			
	Cash	16 000	
	Accumulated Depreciation- Equipment	49 000	
	Equipment		60 000
	Gain on Disposal of Plant Assets		5 000

(To record sale of Equipment at a gain)

Example 4:

Assume that instead of selling the Equipment for ID16 000, Baghdad Company sells it for ID9 000. In this case, Baghdad computes a loss of ID 2 000 as follows.

Cost of Equipment	ID 60 000
Less: Accumulated depreciation	49 000
Book value at date of disposal	11 000
Proceeds from sale	9 000
Loss on disposal of plant asset	ID 2 000

required records the sale and the loss on disposal of the plant asset as follows.

July 1	Cash	9 000	
	Accumulated Depreciation — Equipment	49 000	
	Loss on Disposal of Plant Assets	2 000	
	Equipment		60 000
	(To record sale of Equipment at a loss)		

Depreciation: is the process of allocating the cost of a plant asset over its useful (service) life in a rational and systematic manner. Cost allocation enables companies to properly match expenses with revenues in accordance with the expense recognition principle.

1. **Cost:** Earlier, we explained the issues affecting the cost of a depreciable asset. Recall that companies record plant assets at historical cost, in accordance with the measurement principle.

2. **Useful life:** Is an estimate of the expected *productive life*, also called *service life*, of the asset for its owner. Useful life may be expressed in terms of time, units of activity (such as machine hours), or units of output. Useful life is an estimate. In making the estimate, management considers such factors as the intended use of the asset, its expected repair and maintenance, and its vulnerability to obsolescence. Past experience with similar assets is often helpful in deciding on expected useful life. We might reasonably expect.

3. **Salvage (residual) value:** Is an estimate of the asset's value at the end of its useful life. This value may be based on the asset's worth as scrap or on its expected trade-in value. Like useful life, salvage value is an estimate. In making the estimate, management considers how it plans to dispose of the asset and its experience with similar assets.

4. **Book value:** (Cost less accumulated depreciation).

5. **Depreciable base:** (Cost less salvage value).

Depreciation is generally computed using one of the following methods:

1- **Time- Based Depreciation Methods**:

a) ***Straight-line method***: Allocates an equal amount of depreciable base to each year of assets service.

To compute depreciation expense under the straight-line method we use the following formula;

Annual depreciation= (Cost – salvage value) ÷ estimated useful life

Also we can use ***Straight-line rate*** to compute annual depreciation. Simply straight-line rate is one divided by the number of years in the asset's service live.

For example, the straight- line rate for an asset with a five –year is one-fifth or 20% (1÷5×100%).

Example 1: Baghdad Company purchased a machine for ID 250000. The company expects the service live of the machine to be five years. During that time, it is expected that the machine will produce 140000 units. The residual or salvage value is ID 40000. The machine was disposed after five years of use. Actual production during the five years of the asset's life was:

Year	Units produced
1	24000
2	36000
3	46000
4	8000
5	16000
Total	130000

Required:

Calculate annual depreciation for the five – year using straight- line method. Round all computations to the nearest Iraqi dinner.

Solution:

Annual depreciation = (cost- salvage value) ÷ 5 years

$= \frac{(\text{ID } 250000\text{-}40000)}{5 \text{ years}} = \text{ID } 42000 \text{ per year}$

Also we can use straight- line rate to compute annual depreciation

Straight- line rate = (100% ÷ useful life) = (%100 ÷ 5 years) = 20%

Annual depreciation = (ID 250000- 40000) × 20% = ID 42000

b) **Double Declining balance method:** An accelerated depreciation pattern can be achieved by appropriate in special situations. In this method will

not use depreciable base (Cost- savage value), but it use (cost - accumulated depreciation). So the formula will be;

Annual depreciation= (Cost- accumulated depreciation) × (%100÷ life)×2

Example 2:

By using above information in example (1) calculate the depreciation by using Double declining balance method.

Solution:

Annual depreciation for year 1= (250000- 0) × (%100÷5) ×2

= 250000×%40= 100000

Year	Book Value Beginning of year	×	Depreciation Rate per year	=	Depreciation	Book Value End of year
1	ID 250000		%40		100000	150000
2	150000		% 40		60000	90000
3	90000		% 40		36000	54000
4	54000		%40		*14000	40000
5	40000					
Total					ID210000	

*Amount necessary to reduce book value to salvage value

C) Sum-of- the – years- digits method: In this method the annual depreciation compute according to the following formula;

Sum of the years digits = $\frac{n(n+1)}{2}$

Example: By using above information in example (1) compute depreciation by using sum-of- years-digits.

Solution:

Depreciable base = (Cost – salvage) = (250000 – 40000) = 210000

$$\frac{n(n+1)}{2} = \frac{5(5+1)}{2} = 15$$

Year	Depreciable Base	×	Depreciation Rate per year	=	Depreciation	Book value End of year
1	ID 210000		5/15		ID 70000	180000
2	210000		4/15		56000	124000
3	210000		3/15		42000	82000
4	210000		2/15		28000	54000
5	210000		1/15		14000	40000
Total			15/15		ID 210000	

2- Activity Based Depreciation method:

Under the units-of-activity method, useful life is expressed in terms of the total units of production or use expected from the asset, rather than as a time period. The units of- activity method is ideally suited to factory machinery. Under units-of- activity method we use the following formula;

$$\text{Annual depreciation} = \frac{(\text{cost- salvage value}) \times \text{produced units}}{\text{Total estimated production units}}$$

Solution: First step is compute depreciation rate per unit as following;

$$\frac{\text{Cost- salvage}}{\text{Total estimated production units}}$$

$$= \frac{\text{ID 250000- 40000}}{\text{140000 Units}} = \text{ID 1.50 per unit}$$

Year	Units Produced	Depreciation × Rate per unit	=	Depreciation	Book value End of year
1	24000	ID 1.50		ID 36000	ID 214000
2	36000	1.50		54000	160000
3	46000	1.50		69000	91000
4	8000	1.50		12000	79000
5	16000	1.50		39000*	40000
Total	130000			ID 210000	

*Amount necessary to reduce book value to salvage value

Treatment of depreciation:

Depreciation is treated as expenses shown in income statement and accumulated depreciation shown in the balance sheet deducted from its related assets, for example accumulated depreciation of equipment shown under (deducted) equipment assets. The company computes depreciation on 31/12/20 or during the year, when the company dispose of the assets by recoding the following entry:

Depreciation expense----------income statement

Accumulated depreciation expense- equipment --------Balance sheet

To record depreciation expense for……..

Q1: On January 1, 2003 Baghdad Company purchased a machine for ID 22000. The company expects the service live of the machine to be five years and it will be worth ID 2000 at the end of its five-year service life. During that time, it is expected that the machine will produce 100000 units Actual production during the five years of the asset's life was:

Year	Units produced
2003	22000
2004	24000
2005	15000
2006	20000
2007	21000
Total	**102000**

Required:

Calculate annual depreciation for the five- year life of the machine by using of the following methods. (Round all computations to the nearest Iraqi dinner).

1- Double declining balance method.
2- Sum-of-the-years digits.
3- Units of production method.

ACCOUNTING IN ENGLISH 2

VALUATION OF INVENTORY : COST BASIS APPROACH

Lecture 4

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Inventory Classification and Systems

Classification

Inventories are:

- items held for sale, or
- goods to be used in the production of goods to be sold.

Businesses with Inventory:

Merchandiser or **Manufacturer**

التاجر الصانع

المخزونات هي بنود الأصول التي تحتفظ بها الشركة للبيع في سياق الأعمال العادية ، أو البضائع التي ستستخدمها أو تستهلكها في إنتاج السلع المراد بيعها.

Inventories are asset items that a company holds for sale in the ordinary course of business, or goods that it will use or consume in the production of goods to be sold.

Inventory Classification and Systems

Type of Business

Merchandiser

- One inventory account
- Purchase goods ready for sale

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Marketable securities	530,000
Accounts receivable	149,000
Merchandise inventory	777,000
Prepaids	33,000
Total current assets	1,774,000
Investments:	
Invesment in ABC bonds	321,657
Investment in UC Inc.	253,980
Notes receivable	150,000
Land held for speculation	550,000
Sinking fund	225,000
Pension fund	653,798

Inventory Classification and Systems

Type of Business

Manufacturer

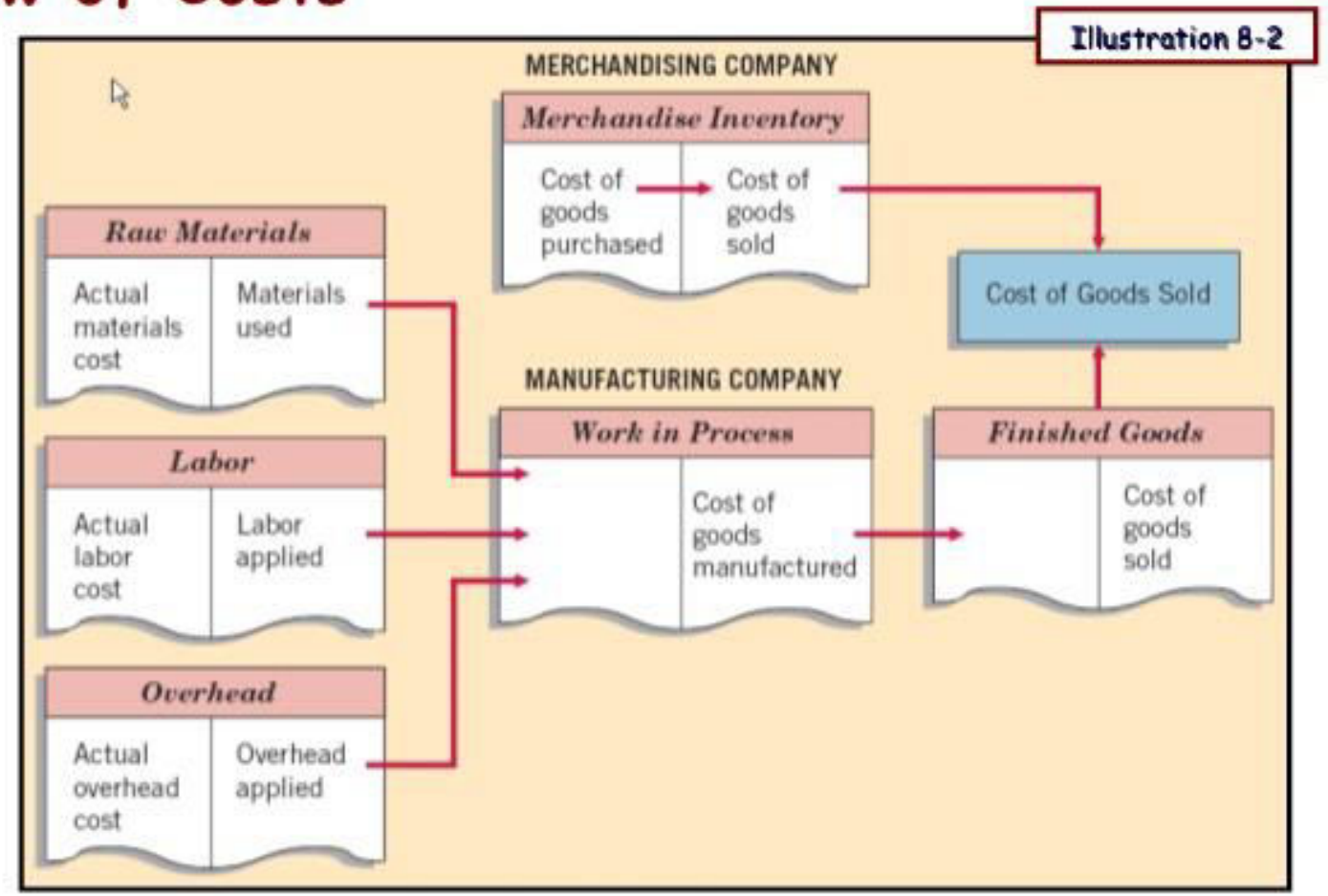
Three accounts

- Raw materials
- Work in process
- Finished goods

Balance Sheet (in thousands)	
Current assets	
Cash	$ 285,000
Marketable securities	530,000
Accounts receivable	149,000
Inventory	
Raw materials	210,000
Work in process	417,000
Finished goods	150,000
Total inventory	777,000
Prepaids	33,000
Total current assets	1,774,000
Investments:	
Invesment in ABC bonds	321,657

Inventory Classification and Systems

Flow of Costs



shows the differences in the flow of costs through a merchandising company and a manufacturing company.

Inventory Cost Flow

- Companies that sell or produce goods report inventory and cost of goods sold at the end of each accounting period.
- The flow of costs for a company is as follows: Beginning inventory plus the cost of goods purchased is the cost of goods available for sale. As goods are sold, they are assigned to cost of goods sold.
- Those goods that are not sold by the end of the accounting period represent ending inventory.
- Companies use one of two types of systems for maintaining accurate inventory records for these costs—the perpetual system or the periodic system.

- تقوم الشركات التي تبيع أو تنتج البضائع بالإبلاغ عن المخزون وتكلفة البضائع المباعة في نهاية كل فترة محاسبية.
- يكون تدفق التكاليف للشركة كما يلي: بداية المخزون بالإضافة إلى تكلفة البضائع المشتراة هي تكلفة البضائع المتاحة للبيع. عندما يتم بيع البضائع ، يتم تخصيصها لتكلفة البضائع المباعة.
- تلك البضائع التي لم يتم بيعها بنهاية الفترة المحاسبية تمثل المخزون الختامي.
- تستخدم الشركات أحد نوعين من الأنظمة للحفاظ على سجلات جرد دقيقة لهذه التكاليف - النظام الدائم أو النظام الدوري.

Perpetual System A perpetual inventory system continuously tracks changes in the Inventory account. That is, a company records all purchases and sales (issues) of goods directly in the Inventory account as they occur. The perpetual inventory system provides a continuous record of the balances in both the Inventory account and the Cost of Goods Sold account.

نظام الجرد الدائم يتتبع نظام الجرد الدائم التغييرات في حساب المخزون باستمرار. أي أن الشركة تسجل جميع المشتريات والمبيعات (إصدارات) البضائع مباشرة في حساب المخزون فور حدوثها. يوفر نظام الجرد الدائم سجلاً مستمرًا للأرصدة في كل من حساب المخزون وحساب تكلفة البضائع المباعة.

Periodic System Under a periodic inventory system, a company determines the quantity of inventory on hand only periodically, as the name implies. It records all acquisitions of inventory during the accounting period by debiting the Purchases account. A company then adds the total in the Purchases account at the end of the accounting period to the cost of the inventory on hand at the beginning of the period. This sum determines the total cost of the goods available for sale during the period.

النظام الدوري في ظل نظام الجرد الدوري ، تحدد الشركة كمية المخزون المتوفر بشكل دوري فقط ، كما يوحي الاسم. يسجل جميع عمليات اقتناء المخزون خلال الفترة المحاسبية عن طريق الخصم من حساب المشتريات. ثم تضيف الشركة الإجمالي في حساب المشتريات في نهاية الفترة المحاسبية إلى تكلفة المخزون المتوفر في بداية الفترة. يحدد هذا المبلغ التكلفة الإجمالية للبضائع المتاحة للبيع خلال الفترة.

Inventory Classification and Systems

Control

Two systems for maintaining inventory records:

- Perpetual system
- Periodic system

Inventory Classification and Systems

Perpetual System

Features:

1. Purchases of merchandise are debited to Inventory.
2. Freight-in, purchase returns and allowances, and purchase discounts are recorded in Inventory.
3. Cost of goods sold is debited and Inventory is credited for each sale.
4. Physical count done to verify Inventory balance.

The perpetual inventory system provides a continuous record of Inventory and Cost of Goods Sold.

Inventory Classification and Systems

Periodic System

Features:

1. Purchases of merchandise are debited to Purchases.
2. Ending Inventory determined by physical count.
3. Calculation of Cost of Goods Sold:

Beginning inventory	$ 100,000
Purchases, net	800,000
Goods available for sale	900,000

LO 2 Distinguish between perpetual and periodic inventory systems.

Inventory Classification and Systems

Perpetual System			vs.	Periodic System		
1. Beginning inventory (100 units at $7 = 700)						
2. Purchase 900 units at $7:						
Inventory	6,300			Purchases	6,300	
Accounts payable		6,300		Accounts payable		6,300
3. Sale of 600 untis at $14:						
Accounts receivable	8,400			Accounts receivable	8,400	
Sales		8,400		Sales		8,400
Cost of goods sold	4,200					
Inventory		4,200				
4. Adjusting entries (ending inventory = 400 units @ $7 = $2,800)						
No Entry Necessary				Inventory	2,100	
				Cost of goods sold	4,200	
				Purchases		6,300

Basic Issues in Inventory Valuation

Valuation of Inventories

Requires the following:

- The **physical goods** (goods on hand, goods in transit, consigned goods, special sales agreements).
- The **costs to include** (product vs. period costs).
- The **cost flow assumption** (FIFO, LIFO, Average cost, Specific Identification, Retail, etc.).

- البضائع المادية المراد تضمينها في المخزون من يملك البضائع؟ -البضائع العابرة ، البضائع المشحونة ، اتفاقيات البيع الخاصة
- التكاليف المراد تضمينها في المخزون (تكاليف المنتج مقابل تكاليف الفترة).
- افتراض تدفق التكلفة المطلوب اعتماده (تحديد محدد ، متوسط التكلفة ، FIFO، LIFO، البيع بالتجزئة ، إلخ.)

Cost Flow Assumptions

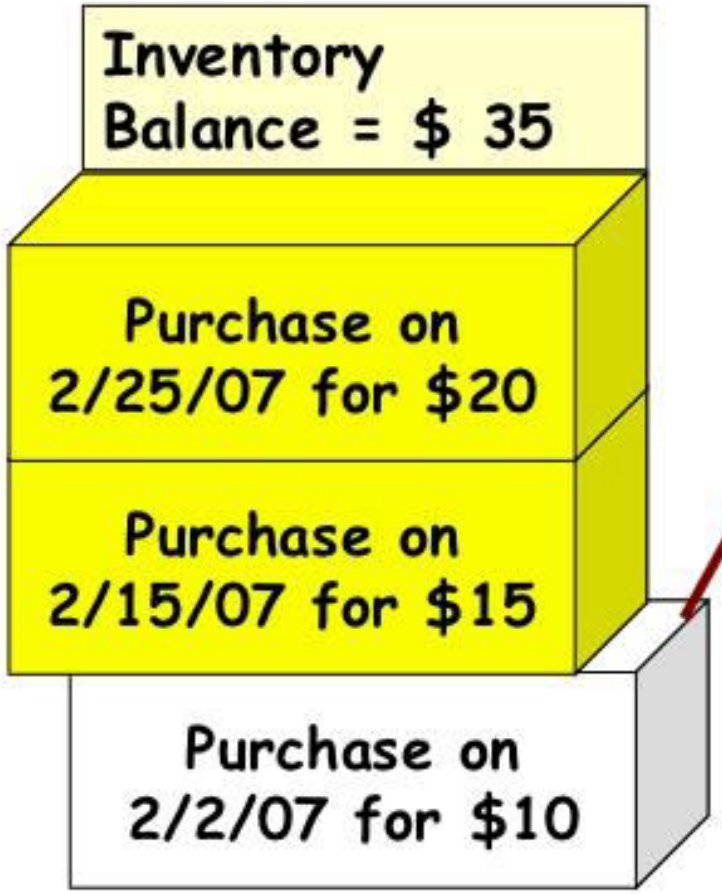
"First-In-First-Out (FIFO)"

Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	0
Gross profit	90
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	57
Taxes	17
Net Income	$ 40

Cost Flow Assumptions

"First-In-First-Out (FIFO)"



Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	10
Gross profit	80
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	47
Taxes	14
Net Income	$ 33

Cost Flow Assumptions

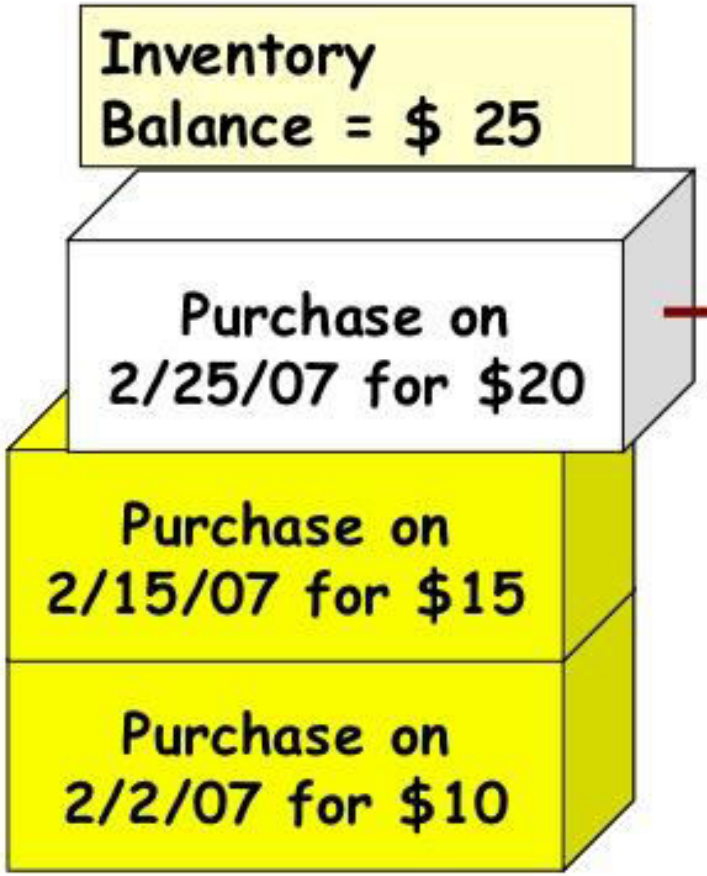
"Last-In-First-Out (LIFO)"

Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	0
Gross profit	90
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	57
Taxes	17
Net Income	$ 40

Cost Flow Assumptions

"Last-In-First-Out (LIFO)"



Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	20
Gross profit	70
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	37
Taxes	11
Net Income	$ 26

Cost Flow Assumptions

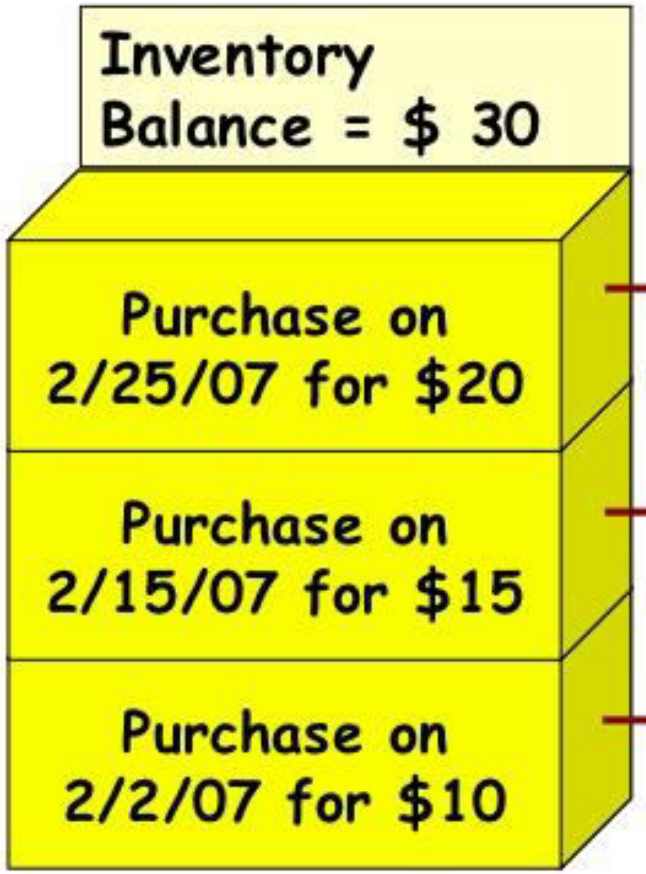
"Average Cost"

Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	0
Gross profit	90
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	57
Taxes	17
Net Income	$ 40

Cost Flow Assumptions

"Average Cost"



Young & Crazy Company
Income Statement
For the Month of Feb. 2007

Sales	$ 90
Cost of goods sold	15
Gross profit	75
Expenses:	
Administrative	14
Selling	12
Interest	7
Total expenses	33
Income before tax	42
Taxes	12
Net Income	$ 30

Cost Flow Assumptions

Financial Statement Summary

	FIFO	LIFO	Average
Sales	$ 90	$ 90	$ 90
Cost of goods sold	10	20	15
Gross profit	80	70	75
Operating expenses:			
Administrative	14	14	14
Selling	12	12	12
Interest	7	7	7
Total expenses	33	33	33
Income before taxes	47	37	42
Income tax expense	14	11	12
Net income	$ 33	$ 26	$ 30
Inventory Balance	35	25	30

FIRST-IN, FIRST-OUT (FIFO)

- THE FIFO (FIRST-IN, FIRST-OUT) METHOD ASSUMES THAT A COMPANY USES GOODS IN THE ORDER IN WHICH IT PURCHASES THEM. IN OTHER WORDS, THE FIFO METHOD ASSUMES THAT THE FIRST GOODS PURCHASED ARE THE FIRST USED (IN A MANUFACTURING CONCERN) OR THE FIRST SOLD (IN A MERCHANDISING CONCERN). THE INVENTORY REMAINING MUST THEREFORE REPRESENT THE MOSTN RECENT PURCHASES.
- TO ILLUSTRATE, ASSUME THAT CALL-MART USES THE PERIODIC INVENTORY SYSTEM. IT DETERMINES ITS COST OF THE ENDING INVENTORY BY TAKING THE COST OF THE MOST RECENT PURCHASE AND WORKING BACK UNTIL IT ACCOUNTS FOR ALL UNITS IN THE INVENTORY. CALL-MART DETERMINES ITS ENDING INVENTORY AND COST OF GOODS SOLD AS SHOWN IN ILLUSTRATION

FIFOأول ما يدخل ، يخرج أولًا

- تفترض طريقة) FIFOالوارد أولاً يصرف أولاً) أن الشركة تستخدم البضائع بالترتيب الذي تشتريها به. بمعنى آخر ، تفترض طريقة FIFOأن البضائع الأولى التي تم شراؤها هي أول السلع المستخدمة (في مجال التصنيع) أو الأولى التي تم بيعها (في مجال التسويق). لذلك يجب أن يمثل المخزون المتبقي أحدث المشتريات.للتوضيح ، افترض أن CALL-MARTتستخدم نظام الجرد الدوري. يحدد تكلفته للمخزون النهائي من خلال أخذ تكلفة آخر عملية شراء والعمل مرة أخرى حتى يتم حساب جميع الوحدات في المخزون. تحدد CALL-MARTمخزونها النهائي وتكلفة البضائع المباعة كما هو موضح في الرسم التوضيحي

Date	No. Units	Unit Cost	Total Cost
March 30	2,000	$4.75	$ 9,500
March 15	4,000	4.40	17,600
Ending inventory	6,000		$27,100

Cost of goods available for sale	$43,900
Deduct: Ending inventory	27,100
Cost of goods sold	$16,800

Date	Purchased		Sold or Issued	Balance	
March 2	(2,000 @ $4.00)	$ 8,000		2,000 @ $4.00	$ 8,000
March 15	(6,000 @ 4.40)	26,400		2,000 @ 4.00 6,000 @ 4.40	34,400
March 19			2,000 @ $4.00 2,000 @ 4.40	4,000 @ 4.40	17,600
			($16,800)		
March 30	(2,000 @ 4.75)	9,500		4,000 @ 4.40 2,000 @ 4.75	27,100

LAST-IN, FIRST-OUT (LIFO)

- THE LIFO (LAST-IN, FIRST-OUT) METHOD MATCHES THE COST OF THE LAST GOODS PURCHASED AGAINST REVENUE. IF CALL-MART INC. USES A PERIODIC INVENTORY SYSTEM, IT ASSUMES THAT THE COST OF THE TOTAL QUANTITY SOLD OR ISSUED DURING THE MONTH COMES FROM THE MOST RECENT PURCHASES. CALL-MART PRICES THE ENDING INVENTORY BY USING THE TOTAL UNITS AS A BASIS OF COMPUTATION AND DISREGARDS THE EXACT DATES OF SALES OR ISSUANCES.
- FOR EXAMPLE, CALL-MART WOULD ASSUME THAT THE COST OF THE 4,000 UNITS WITHDRAWN ABSORBED THE 2,000 UNITS PURCHASED ON MARCH 30 AND 2,000 OF THE 6,000 UNITS PURCHASED ON MARCH 15. ILLUSTRATION SHOWS HOW CALL-MART COMPUTES THE INVENTORY AND RELATED COST OF GOODS SOLD, USING THE PERIODIC INVENTORY METHOD.

الوارد أخيرًا صادر أولاً

- تتطابق طريقة) LIFOالوارد أخيرًا وصادر أولاً) مع تكلفة آخر بضاعة تم شراؤها مقابل الإيرادات. إذا كانت شركة CALL-MART INC.تستخدم نظام جرد دوري ، فإنها تفترض أن تكلفة إجمالي الكمية المباعة أو الصادرة خلال الشهر تأتي من أحدث المشتريات. تقوم CALL-MARTبتسعير المخزون النهائي باستخدام إجمالي الوحدات كأساس للحساب وتتجاهل التواريخ الدقيقة للمبيعات أو الإصدارات.
- على سبيل المثال ، تفترض CALL-MARTأن تكلفة 4000 وحدة تم سحبها قد استوعبت 2000 وحدة تم شراؤها في 30 مارس و 2000 وحدة من 6000 وحدة تم شراؤها في 15 مارس.يوضح الرسم التوضيحي كيف تحسب CALL-MART المخزون والتكلفة ذات الصلة للسلع المباعة ، باستخدام طريقة الجرد الدوري.

Date of Invoice	No. Units	Unit Cost	Total Cost
March 30	2,000	$4.00	$ 8,000
March 15	4,000	4.40	17,600
Ending inventory	6,000		$25,600

Goods available for sale	$43,900
Deduct: Ending inventory	25,600
Cost of goods sold	$18,300

Date	Purchased		Sold or Issued	Balance	
March 2	(2,000 @ $4.00)	$ 8,000		2,000 @ $4.00	$ 8,000
March 15	(6,000 @ 4.40)	26,400		2,000 @ 4.00 6,000 @ 4.40	34,400
March 19			(4,000 @ $4.40) $17,600	2,000 @ 4.00 2,000 @ 4.40	16,800
March 30	(2,000 @ 4.75)	9,500		2,000 @ 4.00 2,000 @ 4.40 2,000 @ 4.75	26,300

AVERAGE COST

- AS THE NAME IMPLIES, THE AVERAGE COST METHOD PRICES ITEMS IN THE INVENTORY ON THE BASIS OF THE AVERAGE COST OF ALL SIMILAR GOODS AVAILABLE DURING THE PERIOD. TO ILLUSTRATE THE USE OF THE PERIODIC INVENTORY METHOD (AMOUNT OF INVENTORY COMPUTED AT THE END OF THE PERIOD), CALL-MART COMPUTES THE ENDING INVENTORY AND COST OF GOODS SOLD USING A WEIGHTED-AVERAGE METHOD AS FOLLOWS.

متوسط السعر

- كما يوحي الاسم ، فإن متوسط طريقة التكلفة يسعر العناصر الموجودة في المخزون على أساس متوسط التكلفة لجميع السلع المماثلة المتاحة خلال الفترة. لتوضيح استخدام طريقة الجرد الدوري (مقدار المخزون المحسوب في نهاية الفترة) ، تحسب CALL-MARTالمخزون النهائي وتكلفة البضائع المباعة باستخدام طريقة المتوسط المرجح على النحو التالي.

Date of Invoice	No. Units	Unit Cost	Total Cost
March 2	2,000	$4.00	$ 8,000
March 15	6,000	4.40	26,400
March 30	2,000	4.75	9,500
Total goods available	10,000		$43,900

Weighted-average cost per unit $\frac{\$43,900}{10,000} = \$4.39$

Inventory in units 6,000 units

Ending inventory $6,000 \times \$4.39 = \$26,340$

Cost of goods available for sale	$43,900
Deduct: Ending inventory	26,340
Cost of goods sold	$17,560

Date	Purchased		Sold or Issued	Balance	
March 2	(2,000 @ $4.00)	$ 8,000		(2,000 @ $4.00)	$ 8,000
March 15	(6,000 @ 4.40)	26,400		(8,000 @ 4.30)	34,400
March 19			(4,000 @ $4.30)		
			$17,200	(4,000 @ 4.30)	17,200
March 30	(2,000 @ 4.75)	9,500		(6,000 @ 4.45)	26,700

END OF LECTURE

Accounting in English 2

VALUATION OF INVENTORY : COST BASIS APPROACH

EXERCISES

LECTURE 5

م.م سرى
نوفل بهجت

- There are two methods of record keeping for tracking a business's inventory: periodic and perpetual. The periodic method is done by taking a physical count and costing the inventory over a specific time period (e.g. weekly) to determine the cost of sales. The perpetual method is done by continuously updating the inventory with each purchase and sale of inventory.
- To determine cost of sales (or cost of goods sold):
- **Beginning inventory (BI) + Purchases (P) − Ending inventory (EI) = Cost of Goods Sold (CGS)**
- There are four different types of inventory valuation methods that can be used for the perpetual method: (1) specific item cost; (2) first-in, first-out (FIFO); (3) last- in, first-out (LIFO); and (4) weighted average cost. This worksheet will cover the last three types.

Example:

Use FIFO, LIFO, and WAC to evaluate the following inventory record.

June 1: Beginning balance was 3 units @ $20.
June 2: Purchase 8 items @ $15.
June 6: Sale of 6 items.
June 15: Purchase 4 items @ $18.
June 20: Sale of 7 items.

The beginning balance and purchases will be the same for all three methods. For FIFO and LIFO, purchases of inventory at different unit prices stay separate in the record of available inventory

سيكون رصيد البداية والمشتريات هو نفسه لجميع الطرق الثلاثة .بالنسبة إلى FIFOو LIFO، تظل مشتريات المخزون بأسعار الوحدات المختلفة منفصلة في سجل المخزون المتاح

For FIFO, the oldest things in the inventory balance will be sold first. On June 6, the number of items to be sold is greater than the amount of items at a particular price. The 3 items @ $20 are the oldest, so they are sold first, but another 3 items are also needed to be sold. These come from the next level of inventory @ $15 each. The items sold are then removed from the inventory balance available.

بالنسبة لـ FIFO، سيتم بيع الأشياء الأقدم في رصيد المخزون أولاً .في 6يونيو ، كان عدد العناصر المراد بيعها أكبر من كمية العناصر بسعر معين .العناصر الثلاثة بسعر 20دولارًا هي الأقدم ، لذا يتم بيعها أولاً ، ولكن يلزم أيضًا بيع 3عناصر أخرى .تأتي هذه من المستوى التالي من المخزون 15@دولارًا لكل منهما .يتم بعد ذلك إزالة العناصر المباعة من رصيد المخزون المتاح.

Item description			Balance Available
Date	**Purchase Received**	**Issued Sales**	**Units x Cost = Tot. Cost**
June 1	Beginning Balance		3 @ $20.00 = $60.00
2	8 @ $15.00 = $120.00		3 @ $20.00 = $60.00 8 @ $15.00 = $120.00
6		3 @ $20.00 = $60.00 3 @ $15.00 = $45.00	5 @ $15.00 = $75.00
15	4 @ $18.00 = $72.00		5 @ $ 15.00 = $75.00 4 @ $18.00 = $72.00
20		5 @ $15.00 = $75.00 2 @ $18.00 = $36.00	2 @ $18.00 = $36.00
Ending	**Purchases = $192.00**	**CS = $216.00**	**Ending Inv. = $36.00**

For LIFO, the newest things in the inventory balance will be sold first. Now, on June 6, where 6 items are to be sold, there are enough of the newest items to only sell items at $15 each. On June 20, in order to sell 7 items, we will sell the newest 4 @ $18, the next newest 2 @ $14, and then one of the oldest @ $20.

بالنسبة إلى LIFO، سيتم بيع أحدث الأشياء في رصيد المخزون أولاً .الآن ، في 6يونيو ، حيث سيتم بيع 6عناصر ، هناك ما يكفي من أحدث العناصر لبيع العناصر فقط بسعر 15دولارًا لكل منها .في 20يونيو ، من أجل بيع 7قطع ، سنبيع أحدث 4 بسعر 18دولارًا أمريكيًا ، والأحدث التالي 2بسعر 14دولارًا أمريكيًا ، ثم أحد الأقدم بسعر 20دولارًا أمريكيًا.

Item description			Balance Available
Date	**Purchase Received**	**Issued Sales**	**Units x Cost = Tot. Cost**
June 1	Beginning Balance		3 @ $20.00 = $60.00
2	8 @ $15.00 = $120.00		3 @ $20.00 = $60.00 8 @ $15.00 = $120.00
6		6 @ $15.00 = $90.00	3 @ $20.00 = $60.00 2 @ $15.00 = $30.00
15	4 @ $18.00 = $72.00		3 @ $20.00 = $60.00 2 @ $15.00 = $30.00 4 @ $18.00 = $72.00
20		4 @ $18.00 = $72.00 2 @ $15.00 = $30.00 1 @ $20.00 = $20.00	2 @ $20.00 = $40.00
Ending	**Purchases = $192.00**	**CS = $212.00**	**Ending Inv. = $40.00**

For WAC, on June 2, when 8 new items @ $15 are purchased, we take the sum of inventory value ($120 + 60) and divide by the total number of goods (11), to get the new cost for each good ($16.36 each). This is the price we will value and sell goods at until another purchase of inventory at a different price (e.g., June 15).

بالنسبة إلى WAC، في 2يونيو ، عندما تم شراء 8عناصر جديدة بسعر 15 دولارًا ، نأخذ مجموع قيمة المخزون 120)دولارًا (60 +ونقسمها على إجمالي عدد السلع (11)، للحصول على التكلفة الجديدة لكل سلعة 16.36)دولارًا (كل .(هذا هو السعر الذي سنقيم فيه البضائع ونبيعها حتى عملية شراء أخرى للمخزون بسعر مختلف)على سبيل المثال ، 15يونيو.(

Item description			Balance Available
Date	**Purchase Received**	**Issued Sales**	**Units x Cost = Tot. Cost**
June 1	Beginning Balance		3 @ $20.00 = $60.00
2	8 @ $15.00 = $120.00		11 @ $16.36 = $179.96
6		6 @ $16.36 = $98.16	5 @ $16.36 = $81.80
15	4 @ $18.00 = $72.00		9 @ $17.09 = $153.81
20		7 @ $17.09 = $119.63	2 @ $17.09 = $34.18
Ending	**Purchases = $192.00**	**CS = $217.79**	**Ending Inv. = $34.18**

Practice Problem

1. Beginning inventory was $26,000, ending inventory was $18,000, and cost of goods sold was $94,000. What was the amount of inventory purchased?

2. On January 1, inventory was $37,000. Inventory purchases for the month of January were $54,000 and the inventory balance on January 31 was $19,000. What was the cost of goods sold?

3. Beginning inventory was $41,000, inventory purchased was $72,000, and cost of goods sold was $100,000. What was the ending inventory?

4. The following information is taken form a perpetual inventory record. Calculate the value of ending inventory and cost of sales for the period ending Aug 31, using: (a) FIFO (b) LIFO (c) weighted average cost.

   August 1: Beginning balance was 4 @ $12
   August 3: Sale of 2 items
   August 5: Purchase of 6 items @ $12.50
   August 8: Sale of 3 items
   August 11: Sale of 3 items
   August 14: Purchase of 8 items @ $13
   August 16: Sale of 4 items
   August 19: Sale of 3 items
   August 22: Purchase of 5 items @ $13.50
   August 25: Sale of 4 items
   August 29: Sale of 2 items

1. **beginning inventory (BI) + Purchases (P) − Ending inventory (EI) = Cost of Goods Sold (CGS)**

Purchases = CGS – BI + EI = 94000 – 26000 + 18000 = $86,000

2. beginning inventory (BI) + Purchases (P) − Ending inventory (EI) = Cost of Goods Sold (CGS)

37000+ 54000 – 19000 = $72,000

3. EI= CGS – BI + P

100000 – 41000 – 72000 = $13,000

4 FIFO

Item description			Balance Available
Date	**Purchase Received**	**Issued Sales**	**Units x Cost = Tot. Cost**
Aug. 1	Balance forward		4 @ $12.00 = $48.00
3		2 @$12.00 = $24.00	2 @ $12.00 = $24.00
5	6 @ $12.50 = $75.00		2 @ $12.00 = $24.00 6 @ $12.50 = $75.00
8		2 @ $12.00 = $24.00 1 @ $12.50 = $12.50	5 @ $12.50 = $62.50
11		3 @ $12.50 = $37.50	2 @ $ 12.50 = $25.00
14	8 @ $13.00 = $104.00		2 @ $12.50 = $25.00 8 @ $13.00 = $104.00
16		2 @ $12.50 = $25.00 2 @ $13.00 = $26.00	6 @ $13.00 = $78.00
19		3 @ $13.00 = $39.00	3 @ $13.00 = $39.00
22	5 @ $13.50 = $67.50		3 @ $13.00 = $39.00 5 @ $13.50 = $67.50
25		3 @ $13.00 = $39.00 1@ $13.50 = $13.50	4 @ $13.50 = $54.00
29		2 @ $13.50 = $27.00	2 @ $13.50 = $27.00
Ending	**Purchases = $246.50**	**Cost of sales = $267.50**	**Ending Inv. = $27.00**

5 LIFO

Item description			Balance Available
Date	**Purchase Received**	**Issued Sales**	**Units x Cost = Tot. Cost**
Aug. 1	Balance forward		4 @ $12.00 = $48.00
3		2 @$12.00 = $24.00	2 @ $12.00 = $24.00
5	6 @ $12.50 = $75.00		2 @ $12.00 = $24.00 6 @ $12.50 = $75.00
8		3 @ $12.50 = $37.50	2 @ $12.00 = $24.00 3 @ $12.50 = $37.50
11		3 @ $12.50 = $37.50	2 @ $ 12.00 = $24.00
14	8 @ $13.00 = $104.00		2 @ $12.00 = $24.00 8 @ $13.00 = $104.00
16		4 @ $13.00 = $52.00	2 @ $12.00 = $24.00 4 @ $13.00 = $52.00
19		3 @ $13.00 = $39.00	2 @ $12.00 = $24.00 1 @ $13.00 = $13.00
22	5 @ $13.50 = $67.50		2 @ $12.00 = $24.00 1 @ $13.00 = $13.00 5 @ $13.50 = $67.50

6 Weighted average cost

Item description			Balance Available
Date	**Purchase Received**	**Issued Sales**	**Units x Cost = Tot. Cost**
Aug. 1	Balance forward		4 @ $12.00 = $48.00
3		2 @$12.00 = $24.00	2 @ $12.00 = $24.00
5	6 @ $12.50 = $75.00		8 @ $12.38 = $99.04
8		3 @ $12.38 = $37.14	5 @ $12.38 = $61.90
11		3 @ $12.38 = $37.14	2 @ $ 12.38 = $24.76
14	8 @ $13.00 = $104.00		10 @ $12.88 = $128.80
16		4 @ $12.88 = $51.52	6 @ $12.88 = $77.28
19		3 @ $12.88 = $38.64	3 @ $12.88 = $38.64
22	5 @ $13.50 = $67.50		8 @ $13.27 = $106.16
25		4 @ $13.27 = $53.08	4 @ $13.27 = $53.08
29		2 @ $13.27 = $26.54	2 @ $13.27 = $26.54
Ending	**Purchases = $246.50**	**Cost of sales = $268.06**	**Ending Inv. = $26.54**

End of lecture

Thank you for listening

ACCOUNTING IN ENGLISH 2
VALUATION OF INVENTORY : COST BASIS APPROACH

م.م سری نوفل بهجت

Lecture 7

Exercise 1 :

Baghdad co. bought a machine for 22,000

The expected life time is 5 years

The expected worth is 2,000

Expected units to be produced is 100,000 unit

Actual production was:

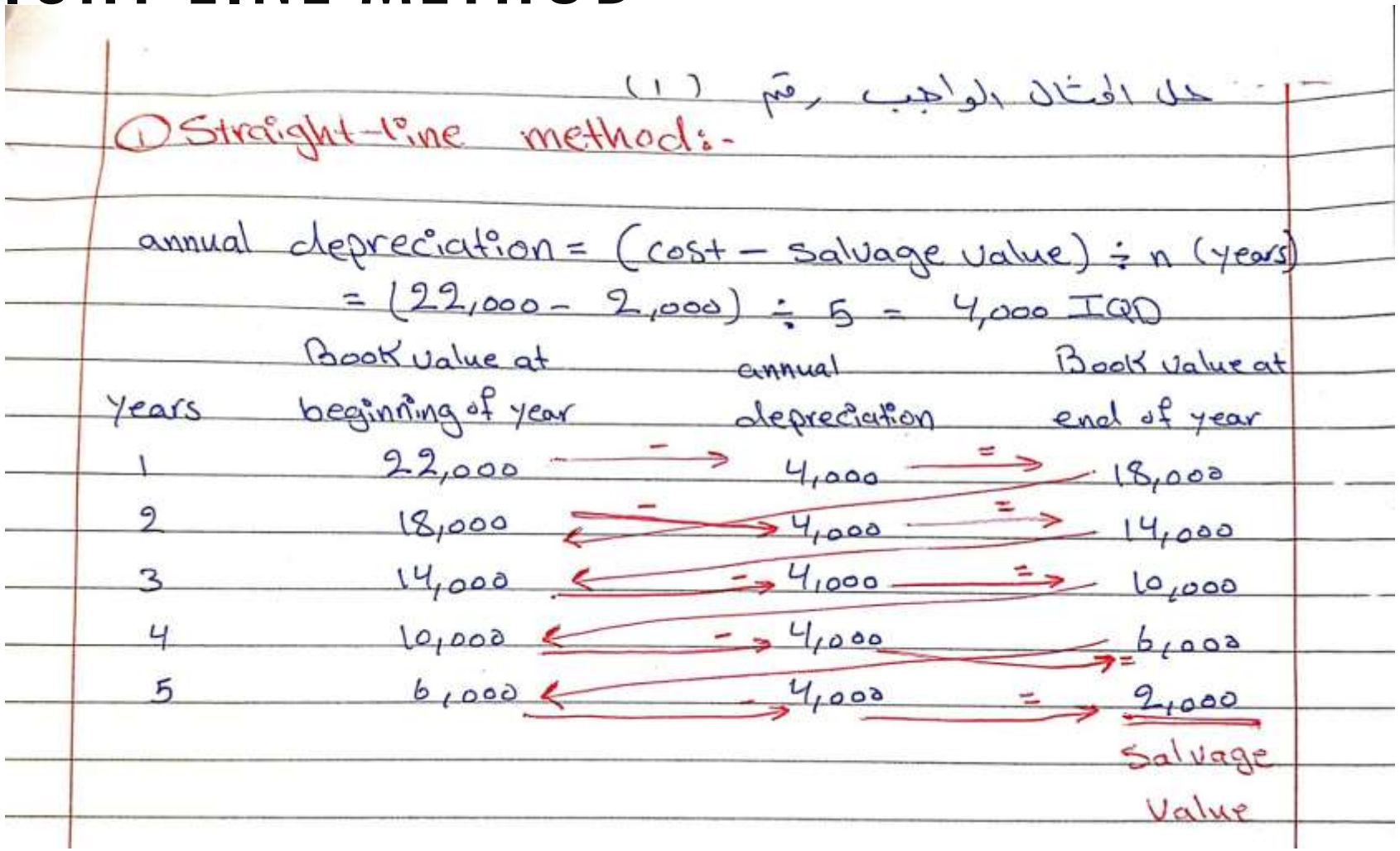
Year	Units produced
1	22,000
2	24,000
3	15,000
4	20,000
5	21,000
total	102,000

Required

Calculate depreciation over the five years using:

(straight line method \ sum of years digit method \ Double declining method \ units produced method)

STRAIGHT LINE METHOD



(١) حل اسئلة الواجب رقم

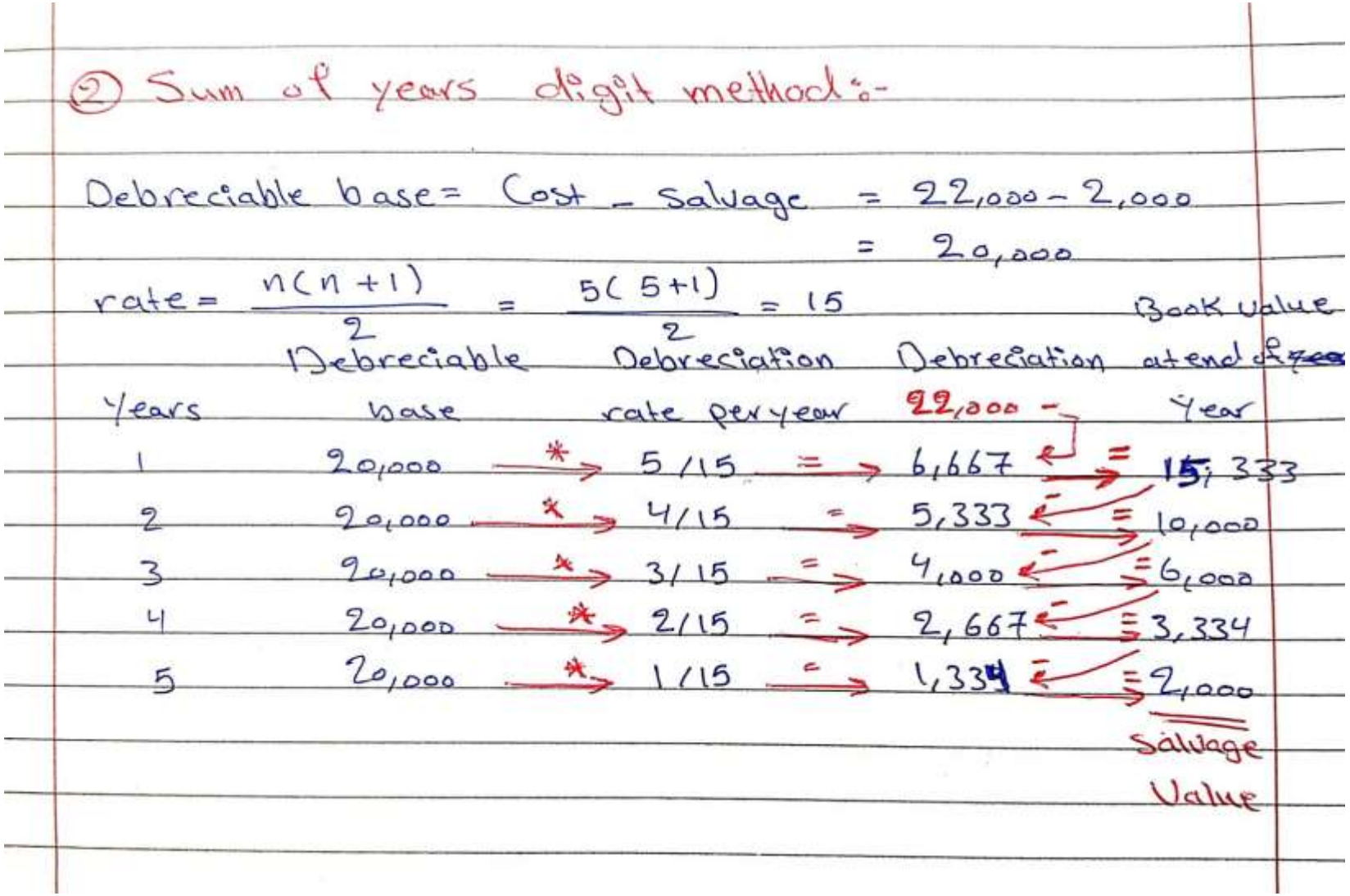
① Straight-line method:-

annual depreciation = (cost − salvage value) ÷ n (years)
= (22,000 − 2,000) ÷ 5 = 4,000 IQD

years	Book value at beginning of year	annual depreciation	Book value at end of year
1	22,000	4,000	18,000
2	18,000	4,000	14,000
3	14,000	4,000	10,000
4	10,000	4,000	6,000
5	6,000	4,000	2,000

Salvage Value

SUM OF YEARS DIGIT METHOD



② Sum of years digit method:-

Debreciable base = Cost − Salvage = 22,000 − 2,000

= 20,000

$$\text{rate} = \frac{n(n+1)}{2} = \frac{5(5+1)}{2} = 15$$

Years	Debreciable base		Debreciation rate per year		Debreciation 22,000 −	Book value at end of year
1	20,000	*	5/15	=	6,667	15,333
2	20,000	*	4/15	=	5,333	10,000
3	20,000	*	3/15	=	4,000	6,000
4	20,000	*	2/15	=	2,667	3,334
5	20,000	*	1/15	=	1,334	2,000

Salvage Value

DOUBLE DECLINING METHOD

year	Book value at beginning of year	Depreciation rate	depreciation	Book value at end of year
1	22,000	40%	8,800	13,200
2	13,200	40%	5,280	7,920
3	7,920	40%	3,168	4,752
4	4,752	40%	1,900	2,852
5	2,852	40%	1,140	**1,712**
				Salvage value

Annual depreciation rate = (cost – depreciation) * (100% \ n)* 2
(22,000 – 0) * (100% \ 5) * 2
40%

UNITS PRODUCED METHOD

year	Units produced	Rate per unit	Depreciation 22,000	Book value at end of year
1	22,000	0.2	4,400	17,600
2	24,000	0.2	4,800	12,800
3	15,000	0.2	3,000	9,800
4	20,000	0.2	4,000	5,800
5	21,000	0.2	4,200	**1,600**
				Salvage value

Rate = (cost – salvage) \ estimated production units
= (22,000 – 2,000) \ 100,000
= 0.2 rate per unit

EXERCISE 2

Date	operation
1\1	Opening balance 10 * 2.00 = $ 20.00
1\1	20 * $ 2.20 = $ 44.00
1\15	40 * $ 2.50 = $ 100.00
1\20	30 * $ 2.00 = $ 60.00
1\ 31	20 * $ 2.40 = $ 48.00

Ending inventory = 55
Total inventory = 120
Using the above information, answer the following questions:

1. **What is the value of closing inventory using the Weighted Average Purchase Price?**
2. **What is the value of closing inventory using the FIFO Method?**
3. **What is the value of closing inventory using the LIFO Method?**

1) بما انه لم يذكر لنا قيد او تاريخ او عملية بيع اذا تم البيع في نهاية الفترة

2) بما انه لم يذكر عدد الوحدات المراد بيعها او التي تم بيعها اذا يجب ان نستخرج عدد الوحدات المباعة باستخدام القانون التالي:

3) Ending inventory = Beginning inventory + Purchase – Sale

4) Sale = Beginning + purchase – ending

5) = [10 + (20 +30 +40 +20)] – 55

6) = 120 – 55

7) = 65 unit sold

1) WEIGHTED AVERAGE COST

Date	Purchase	Sale	Balance
1\1	Opening balance		10 * $ 2.00 = $ 20.00
1\1	20 * $ 2.20 = $ 44.00		30 * $ 2.13 = $ 63.90
1\15	40 * $ 2.50 = $ 100.00		70 * $ 2.34 = $ 163.8
1\20	30 * $ 2.00 = $ 60.00		100 * $ 2.24 = $ 224.0
1\ 31	20 * $ 2.40 = $ 48.00		120 * $ 2.27 = $ 272.40
1\31		65 * $ 2.27 = $ 147.55	55 * $ 2.27 = $ 124.90

Weighted cost = total cost \ total units

1\1 = (20.00 + 44.00) \ (10 + 20) = $ 2.13

1\15 = (63.90 + 100.00) \ (30 + 40) = $ 2.34

1 \ 20 = (163.8 + 60.00) \ (70 + 30) = $ 2.24

1\ 31 = (224.0 + 48.0) \ (100 + 20) = $ 2.27

2) FIRST IN FIRST OUT FIFO

Date	Purchase	Sale	Balance
1\1	Opening balance		10 * $ 2.00 = $ 20.00
1\1	20 * $ 2.20 = $ 44.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00
1\15	40 * $ 2.50 = $ 100.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00 40 * $ 2.50 = $ 100.00
1\20	30 * $ 2.00 = $ 60.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00 40 * $ 2.50 = $ 100.00 30 * $ 2.00 = $ 60.00
1\31	20 * $ 2.40 = $ 48.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00 40 * $ 2.50 = $ 100.00 30 * $ 2.00 = $ 60.00 20 * $ 2.40 = $ 48.00
1\31		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00 35 * $ 2.50 = $ 87.50	5 * $ 2.50 = $ 12.50 30 * $ 2.00 = $ 60.00 20 * $ 2.40 = $ 48.00
		65 unit	$ 120.50

3) LAST IN FIRST OUT LIFO

Date	Purchase	Sale	Balance
1\1	Opening balance		10 * $ 2.00 = $ 20.00
1\1	20 * $ 2.20 = $ 44.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00
1\15	40 * $ 2.50 = $ 100.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00 40 * $ 2.50 = $ 100.00
1\20	30 * $ 2.00 = $ 60.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00 40 * $ 2.50 = $ 100.00 30 * $ 2.00 = $ 60.00
1\31	20 * $ 2.40 = $ 48.00		10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00 40 * $ 2.50 = $ 100.00 30 * $ 2.00 = $ 60.00 20 * $ 2.40 = $ 48.00
1\31		20 * $ 2.40 = $ 48.00 30 * $ 2.00 = $ 60.00 15 * $ 2.50 = $ 37.50	25 * $ 2.50 = $ 62.50 10 * $ 2.00 = $ 20.00 20 * $ 2.20 = $ 44.00
		65 unit	$ 126.50

③ Double-declining method:-

annual depreciation = (cost - depreciation) * (100% ÷ n) *2

= (22,000 - 0) * (100% ÷ 5) *2

= 40%

Year	Book value at beginning of year		Depreciation rate per year		Depreciation		Book value at end of year
1	22,000	* →	40%	= →	8,800	= →	13,200
2	13,200		40%		5,280		7,920
3	7,920	* →	40%	= →	3,168		4,752
4	4,752	* →	40%	= →	1,900		2,852
5	2,852	* →	40%	= →	1,140		1,712

Salvage value

(4) Units of production method:-

$$\text{rate} = \frac{(\text{Cost} - \text{salvage value})}{\text{estimated production units}} = \frac{(22{,}000 - 2{,}000)}{100{,}000} = 0.2$$

ID per unit

year	units produced	rate per unit	Depreciation	Book value at end of year
	Cost في الفتحة			
1	22,000	0.2	4,400	17,600
2	24,000	0.2	4,800	12,800
3	15,000	0.2	3,000	9,800
4	20,000	0.2	4,000	5,800
5	21,000	0.2	4,200	1,600

Salvage Value