ACCOUNTING FOR DEPRECIATION

Definition of Depreciation:

Depreciation is the process of allocating to expense 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.

Depreciation applies to three classes of plant assets: land improvements, buildings, and equipment

Factors Involved in the Depreciation Process:

Before establishing a pattern of charges to revenue, a company must answer three basic questions**:**

1. What depreciable base is to be used for the asset?

2. What is the asset's useful life?

3. What method of cost apportionment is best for this asset?

Three factors affect the computation of depreciation, as shown in Illustration:

1. Cost. all expenditures necessary to acquire the asset and make it ready for intended use

2. Useful life. estimate of the expected life based on need for repair, service life, and vulnerability to obsolescence.

3. Salvage value: estimate of the asset's value at the end of its useful life

Depreciation Methods:

Depreciation is generally computed using one of the following methods:

1. Straight-line

2. Units-of-activity

3. Declining-balance

4- Sum -of-the- Years - Digits

1. Straight-line: An equal amount of depreciable cost is allocated to each period, by means of this formula:

{Historical Cost (HC) - Salvage Value(SV) } ÷ Estimated Useful Life (EUL)

Example /1:
ABC Company purchased a machine for IQD 10000 estimated useful life 5 years, no salvage value. The company use straight depreciation method.

Required: Find the amount of depreciation for each year of the useful and record a journal entry for depreciation by using in direct method.

Solution:

Straight-line dep. = HC-SV ÷ EUL ….. 10000 - 0 ÷5 = 2000 IQD

Depreciation expense, Machines   2000

    Accumulated depreciation‹Machines   2000

The table below summarized the book value and accumulated depreciation at the end of each year.

Year	Cost	Depreciation	Accumulated Depreciation	Book Value
1	10000	2000	2000	8000
2	10000	2000	4000	6000

3	10000	2000	6000	4000
4	10000	2000	8000	2000
5	10000	2000	10000	Zero

2. Units-of-activity: 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.

An equal amount of depreciable cost is allocated to each period, by means of this formula:

Depreciation per Unit = [Cost − Salvage] ÷ Estimated Units of Production

Example /2:

A company purchased a car at IQD 12000 its salvage value is IQD 2000, the number of kilometers estimated during the useful life is 100000 km.

Required: Compute depreciation amount for the first two years if it went 20000 km, 15000 km respectively.

Solution:

Depreciation per kilometer (12000 - 2000) ÷ 100000 = 0.10 IQD per km.

Depreciation for the first year = 20000 × 0.10 = 2000 IQD

Depreciation for the second year = 15000 × 0.10 = 1500 IQD

3. Declining-balance: The declining-balance method produces a decreasing annual depreciation expense over the asset's useful life.

Fixed Depreciation Rate = (1/N)

N: Useful Life

Double declining rate = Fixed Depreciation Rate ×2

D.B. Depreciation = Double declining rate × (Cost − Accumulated Depreciation)

Example /3:

A machine is purchased at IQD 10000 the useful life is 10 year the company decided to use double declining balance method.

Required: Find depreciation for the first three years.

Solution:

Fixed depreciation rate = 1÷N = 1 ÷10 = 10%

Double declining rate = 2x10% = 20%

Year	Book value at the beginning of the year	Depreciation rate	Depreciation Amount	Book value at the end of the year
1	10000	20%	2000	8000
2	8000	20%	1600	6400
3	6400	20%	1280	5120

4.Sum -of-the- Years – Digits:

A formula useful when calculating the denominator is N (N + 1)/2.

Example /4:

Assume the Iraq company purchased an additional Car for digging purposes, he pertinent data concerning this purchase. the company decided to use Sum -of-the-Years – Digits

Cost of Car $500,000

Estimated useful life 5 years
Estimated salvage value $50,000

Solution: Depreciable Base (الكلفة الخاضعة للإهلاك) = (cost – Salvage)

500000 - 50000 =450000........N (N + 1)/2= 5(5+1)/2= 15

Year	Depreciable Base ×	Depreciation Rate per Year =	Depreciation	Accumulated Depreciation	Book Value End of Year
1	450000	5/15	150000	150000	350000
2	450000	4/15	120000	270000	230000
3	450000	3/15	90000	360000	140000
4	450000	2/15	60000	420000	80000
5	450000	1/15	30000	450000	50000
total		15/15	450000		500000