



WORKSHEET: 21

School: Ba Sangam College

Year: 1101

Name: _____

Subject : Accounting

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| Strand – 6 | SYSTEMS FOR IMPLEMENTING THE ACCOUNTING PROCESS- I |
| Sub Strand (6.3) | Sub System Inventory |
| Content Learning Outcome (6.3.1) | Evaluate the internal control procedures over inventory. |

Depreciation

Depreciation is a non-cash expense that reduces the value of the fixed asset over time. It refers to the allocating of the original cost of the fixed asset over its useful life.

Business assets that can be depreciated include equipment, machinery, technology and computers, office furniture, buildings and improvements to buildings, leasehold improvements, and business vehicles.

- Land cannot be depreciated because it appreciates in value.

Causes of depreciation

• **Wear and tear.** For example, an auto will decrease in value because of the mileage, wear on tires, and other factors related to the use of the vehicle.

• **Obsolescence.** Assets also decrease in value as they are replaced by newer models. Last year's car model is less valuable because there is a newer model in the marketplace.

• **Physical Deterioration**

Value decreases due to flood, excessive heat etc.

• **Passage of time**

As the time passes the value of fixed assets decreases.

Cost Allocation Concept of depreciation on fixed assets

It is important to know depreciation is a cost allocation process. Charging of depreciation each year decreases the book value of the asset. The value shown in the balance sheet does not represent the realizable value (market value) the asset could be sold for

It represents the written down cost of the asset. Charging of depreciation is a book entry and it does not involve cash. Allocating the cost over its useful life does not mean setting cash aside to replace the asset.

Factors Affecting Depreciation

1. *Cost of the asset*

- are all cost incurred to bring the asset into working order with that of the purchase price.

2. Useful life of the asset

- is the period it is expected to be used in the business.

3. Residual value, scrap value, trade-in value, salvage value, disposal value

- is the value of the asset at the end of its life .

Formulas to Remember on Accounting for Depreciation

1. Original cost = Purchase price + other cost associated in bringing the asset into location or condition ready for use e.g. Instalment cost

2. Depreciable Cost = Original Cost – Scrap value

3. Accumulated Depreciation = Depreciation of the current year + Sum of depreciation for previous years

Another name is Provision for depreciation

4. Book Value = Original Cost – Accumulated Depreciation

5. Rate or % of Depreciation = Depreciation per annum
Depreciable Cost

6. Gain on Sale = Difference of (Selling Price > Cost Price)

7. Loss on Sale = Difference of (Selling Price < Cost Price)

Methods of Depreciation

1. **Straight Line Method** – where same amount of depreciation is charged every year.

| Advantages | Disadvantages |
|---|---|
| Easy and convenient to use | May not reflect the true pattern of asset's economic benefits |
| Suitable for depreciating assets that provide similar level of economic benefits throughout their useful life (e.g. buildings). | |

Formula

$$\begin{array}{lcl} \text{Depreciation per} & = & \frac{\text{Original cost} - \text{Scrap value}}{\text{Estimated useful life}} \\ \text{Annum/ Year} & & \\ & \text{OR} & \\ \text{Depreciation per Annum/ Year} & = & \text{Original Cost X Rate} \end{array}$$

NB: Either the formula or rate can be used for calculating depreciation depending on the question.

Example

On 1 January 2010 a business purchased Equipment for \$6400 cash and installation charges amounted to \$600. Its estimated life was considered to be 5 years with a residual value of \$2000.

Required:

- ✚ **Calculate the Original Cost, Purchase Price or Acquisition cost of the Equipment**

Original Cost = Purchase Price + Any other cost

$$\text{\$7000} = \text{\$6400} + \text{\$600}$$

- ✚ **Calculate the Depreciable Cost of the Equipment**

Depreciable Cost = Original Cost – Scrap value

$$\text{\$5000} = \text{\$7000} - \text{\$2000}$$

- ✚ **Calculate Depreciation per annum for equipment**

Depreciation per annum = $\frac{\text{Original Cost} - \text{Scrap value}}{\text{Estimated Useful Life}}$

$$\text{\$1000/ annum} = \frac{\text{\$7000} - \text{\$2000}}{5 \text{ Years}}$$

- ✚ **Show the calculation in a table**

| Year | Cost | Depreciation | Accumulated Depreciation | Book Value |
|------|---------|--------------|--------------------------|------------|
| 2010 | \\$7000 | \\$1000 | \\$1000 | \\$6000 |
| 2011 | \\$7000 | \\$1000 | \\$2000 | \\$5000 |
| 2012 | \\$7000 | \\$1000 | \\$3000 | \\$4000 |
| 2013 | \\$7000 | \\$1000 | \\$4000 | \\$3000 |
| 2014 | \\$7000 | \\$1000 | \\$5000 | \\$2000 |

- ✚ **Prepare the General Journal Entry of depreciation for the year 2011**

| Date | Particulars | Debit \\$ | Credit \\$ |
|----------------|--|-----------|------------|
| 31 Dec 2011 | Depreciation on Equipment Provision for depreciation on Equipment (To record depreciation expense for the year) | 1000 | 1000 |

✚ Calculate Accumulated Depreciation at the end of the year 2012

$$\begin{aligned}\text{Accumulated Depreciation} &= \$1000 \times 3 \\ &= \$3000\end{aligned}$$

✚ Compute the Book Value of the Equipment at the end of Year 2013

$$\begin{aligned}\text{Book Value} &= \text{Original Cost} - \text{Accumulated Depreciation} \\ \$3000 &= \$7000 - (\$1000 + \$3000)\end{aligned}$$

✚ What would be the Gain or Loss on sale if the Equipment was sold for \$6000 at the end of year 2014

$$\text{Gain or Loss on Sale} = \text{Selling Price} - \text{Book Value}$$

$$\$4000 \text{ gain on sale} = \$6000 - (\$7000 - \$5000)$$

Gain on sale because selling price is more than book value

Activity

1. If depreciation is not provided on assets, it will result in one of the following:

- A. Funds are not put aside for the asset
- B. They will break down more often
- C. They will have low residual value
- D. Profits are overstated

2. The book value of a building at the end of 2nd year for which original cost is \$12000, residual value \$2000 and estimated useful life of 4 years is (use straight line method)

- A. \$10000
- B. \$2500
- C. \$5000
- D. \$7000

3. Jacks Limited, a company acquired a machine on 1st January, 2008 for \$67,000. The disposal value of the machine after its estimated usage of 16 years is \$3,000. The company's financial year ends on 31st December each year. (Use straight line method)

Required:

i) What is the purpose of providing depreciation on fixed assets?

ii) Calculate the depreciation for the financial period which ends in 2009.

iii) What would be the accumulated depreciation for the year which ends in 2010?

iv) Calculate the gain or loss on sale if the machine is to be sold on 31/12/12 for \$45,000.

v) Which accounting concepts are used in writing of depreciation?

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