1. Details of Module and its structure

Module Detail	
Subject Name	Accountancy
Course Name	Accountancy 01 (Class XI, Semester - 1)
Module Name/Title	Depreciation, Provisions & Reserves – Part 1
Module Id	keac_10501
Pre-requisites	Basic knowledge of Depreciation, Provisions & Reserves Process and its accounting terms
Objectives	After going through this lesson, the learners will be able to understand the following: • Meaning of Depreciation • Types of Depreciation • Concept of Provisions and Reserves • Distinguish between Reserves and Provisions • Types of Reserves
Keywords	Source Documents, Depreciation Vouchers

2. Development Team

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1. Introduction

For smooth running of business and enhancing its operations,every business acquireassets. which are not dealt with in a day to day trading. These assets are called fixed assets which are used in business for facilitating its trading activities and enhancing its revenue earning capacity. These assets are basically purchased by any business entity with the intention of its permanent use and not for resale purposes.

The value of fixed assets decreases with wear and tear due to its constant use and with the passage of time. Such gradual reduction or decrease in the value of fixed assets for the purpose of earning revenue is called depreciation. Depreciation is closely related with the determination of profit or loss for the period. Unless depreciation is charges to the revenues, the true income of the business can not be ascertained properly. As such depreciation is a revenue expense.

1.1 Meaning of Depreciation

Depreciation is a charge to profit and loss account that accounts for the fall in value of an asset during each year of its use. It represents that part of the cost of fixed asset to its owners which is not recoverable when the asset is finally put out of use by its owners. Depreciation is a measure of the wearing out, consumption or other value of a depreciable asset arising from the use , effusion of time or obsolescence through tech ology and market changes. Depreciation is allocated so as to charge a fair proportion of the depreciable amount in each accounting period during the expected useful life of the asset. It also include amortization of asset ehose useful life is pre-determined. Examples of depreciable assets are machines, plants, furniture, buildings, computers, trucks, vans, equipment, writing off of patents, copyrights etc. Moreover, depreciation is the allocation of 'depreciable amount' which is the 'historical cost' or other amount substituted for historical cost less

estimated salvage value.It is to be noted that land is one such asset whose value is not depreciated unless it has a limited useful life.

Depreciation has significant effect in determining and presenting the financial position and results of operations of an enterprise. Depreciation is charged in each accounting period by reference to the extent of the depreciable amount.

In this way, depreciation is defined as an allocation of the cost of assets over their useful life. A systematic procedure of for allocating the cost over the periods of its useful life in a rational manner is called depreciation accounting.

Depreciable assets are assets which are expectd to be used for more than one accounting period, have a limited useful life and are held by an enterprise for use in the production or supply of goods and services for rental to others or for administrative purposes.

Accounting Standard VI (Revised)
Objective:

1. Provide basis for selection of method of depreciation
2. Prescribe accounting treatment and disclosure requirement.

Scope:

1. Applicability
   i. All depreciable assets
2. Not applicable on:
   i. Forests, Plantation and similar regenerative resources
   ii. Wasting assets including expenditure for extraction of minerals, oils, natural gas and similar non regenerative resources
   iii. Expenditure of research and development
   iv. Goodwill and other intangible assets
   v. Livestock
   vi. Land unless it has a limited useful life

The need for providing depreciation in accounting records arises from conceptual, legal, and practical business consideration. These considerations provide depreciation a particular significance as a business expense. Need for depreciation is justified on following grounds:

1) **Matching of Costs and Revenue**

The rationale of the acquisition of fixed assets in business operations is that these are used in the earning of revenue. Every asset is bound to undergo some wear and tear, and hence lose value, once it is put to use in business. Therefore, depreciation is as much the cost as any other expense incurred in the normal course of business like salary, carriage, postage and stationary, etc. It is a charge

against the revenue of the corresponding period and must be deducted before arriving at net profit according to Generally Accepted Accounting Principles (GAAP).

2) **Consideration of Tax**

Depreciation is a deductible cost for tax purposes. However, tax rules for the calculation of depreciation amount need not necessarily be similar to current business practices,

3) **True and Fair Financial Position**

If depreciation on assets is not provided for, then the assets will be over valued and the balance sheet will not depict the correct financial position of the business. Also, this is not permitted either by established accounting practices or by specific provisions of law.

4) **Compliance with Law**

Apart from tax regulations, there are certain specific legislations that indirectly compel some business organizations like corporate enterprises to provide depreciation on fixed assets.

3) Methods of Depreciation

The depreciation amount to be charged for during an accounting year depends up on depreciable amount and the method of allocation. For this, two methods are mandated by law and enforced by professional accounting practice in India. These methods are straight line method and written down value method.

As per Accounting Standard-6, the selected depreciation method should be applied consistently from period to period. Change in depreciation method may be allowed only under specific circumstances.

3.1 Straight Line Method

Under straight line method, a fixed and equal amount in the form of depreciation is charged according to the fixed percentage on the original cost of the asset over its expected useful life and is written off during each accounting period.

The formula used under straight line method is as follows:

$$Deperciation = \frac{CostofAssests - Estimatednetresidentialvalue}{Estimatedusefullifeoftheasset}$$

Rate of depreciation under straight line method is the percentage of the total cost of the asset to be charged as deprecation during the useful lifetime of the asset. Rate of depreciation is calculated as follows:

$$Rate of Deperciation = \frac{Annual deperication amount}{Acquistion cost} \times 100$$

Consider the following example, the original cost of the asset is Rs. 2,50,000. The useful life of the asset is 10 years and net residual value is estimated to be Rs. 50,000. Now, the amount of depreciation to be charged every year will be computed as follows:

$$Annual Deperciation Amount = \frac{Acquistion cost of assests - Estimated net residential value}{Estimated life of assets}$$

$$i.e = \frac{Rs.2,50,000 - Rs.50,000}{10} = Rs.20,000$$

The rate of depreciation will be calculated as :

$$Rate of Deperciation = \frac{Annual deperication amount}{Acquistion cost} \times 100$$

From point (i), the annual depreciation amounts to Rs. 20,000.

Thus, the rate of depreciation will be

$$i.e = \frac{Rs.20,000}{Rs.2,50,000} \times 100 = 8$$

Advantages of Straight Line Method

Straight Line method has certain advantages which are stated below:

- It is very simple, easy to understand and apply. Simplicity makes it a popular method in practice;
- Asset can be depreciated upto the net scrap value or zero value. Therefore, this method makes it possible to distribute full depreciable cost over useful life of the asset;

- Every year, same amount is charged as depreciation in profit and loss account. This makes comparison of profits for different years easy;
- This method is suitable for those assets whose useful life can be estimated accurately and where the use of the asset is consistent from year to year such as leasehold buildings.

Limitations of Straight Line Method

Although straight line method is simple and easy to apply it suffers from certain limitations which are given below.

- This method is based on the faulty assumption of same utility of the asset in different accounting years;
- With the passage of time, work efficiency of the asset decreases and repair and maintenance expense increases. Hence, under this method total amount charged against profit on account of depreciation and repair taken together will not be uniform throughout the life of the asset, rather it will keep on increasing from year to year.

3.2 Written Down Value Method

Under this method, depreciation is charged as a fixed percentage calculated upon the original cost and written down value (in subsequent year) of an asset, and is written off during each accounting period over the expected useful life of an asset.

Formula for written down value method is :

$$R = [1- \sqrt[n]{\frac{s}{c}} \times 100$$

Example:

If the purchase price of a plkant is Rs. 4,00,000 and Rs. 1,00,000 is spent on its installation. Estimated useful life and scrap value is 10 years and Rs. 2,00,000respectively. Calculate the amount of depreciation for 5 years.

Since the rate of depreciation is not given,it will be calculated as:

$$R = [1- \sqrt[10]{\frac{2,00,000}{41,00,000}} = 26.07\%$$

The amount of depreciation will be computed as:

First year: Rs. 41,00,000 $\times \frac{26.07}{100}$ = Rs. 10,68,870

Second year: Rs. 41,00,000 − 10,68,870 = Rs. 30,31,130

$$\text{Rs. } 30,31,130 \times \frac{26.07}{100} = \text{Rs. } 7,90,216$$

Third year: Rs. 30,31,130 − Rs. 7,90,216 = Rs.22,40,914

$$\text{Rs.}22,40,914 \times \frac{26.07}{100} = \text{Rs. } 5,84,266$$

Fourth year: Rs.22,40,914 − 5,84,266 = Rs. 16,56,708

$$\text{Rs. } 16,56,708 \times \frac{26.07}{100} = \text{Rs. } 4,31,904$$

Fifth year: Rs. 16,56,708 − Rs. 4,31,904 = Rs. 12,24,804

$$\text{Rs. } 12,24,804 \times \frac{26.07}{100} = \text{Rs. } 3,19,306$$

As evident from the example, the amount of depreciation has reduced year after year i.e., I year Rs. 10,68,870, II year Rs. 7,90, 216, III year Rs. 5,84,266, IV year 4,31,904, V year 3,19,306 . . For this reason, it is also known reducing installment or diminishing value method. This method is based upon the assumption that the benefit accruing to business from assets keeps on diminishing as the asset becomes old . This is due to the reason that a predetermined percentage is applied to a gradually shrinking balance on the asset account every year. Thus, large amount is recovered depreciation charge in the earlier years than in later years.

Advantages of Written Down Value Method

Written down value method has the following advantages:

- This method is based on a more realistic assumption that the benefits from asset go on diminishing with the passage of time. Hence, it calls for proper allocation of cost because higher depreciation is charged in earlier years when asset's utility is more as compared to later years when it becomes less useful;
- It results into almost equal burden on profit or loss account of depreciation and repair expenses taken together every year;
- Income Tax Act accept this method for tax purposes;
- As a large portion of cost is written-off in earlier years, loss due to obsolescence gets reduced;
- This method is suitable for fixed assets, which lasts for long and which require increased repair and maintenance expenses with passage of time. It can also be used where obsolescence rate is high.

Limitations of Written Down Value Method

Although this method is based upon a more realistic assumption it suffersfrom the following limitations.

- As depreciation is calculated at fixed percentage of written down value, depreciable cost of the asset cannot be fully written-off. The value of the asset can never be zero;
- It is difficult to ascertain a suitable rate of depreciation.

S. No.	Straightline Method	Written Down Value Mrthod
	Calculation of depreciation is on original cost	Calculation of depreciation is on written down value
	In this case , depreciation amount remains the same	Depreciation amount keeps on reducing year after year
	At the end of estimated useful life of the asset, the balance in the asset account will be *zero*	The balance in the asset account will never reduce to *zero*
	Cost on account of depreciation and maintenance and repairs is low during the initial or early years and high during last years of life of the asset	Cost on account of depreciation and maintenance and repairs is more or less equal through out working life of the asset
	It is suited for assets which get depreciated more on account of expiring of time e.g., patent, lease	It is suitable to assets which require heavy repairs in later years of their working life.

4) Methods of Recording Depreciation

In the books of account, there are two types of arrangements for recording depreciation on fixed assets:

- Charging depreciation to asset account or
- Creating Provision for depreciation/Accumulated depreciation account.

4.1 Charging Depreciation to Asset account

According to this arrangement, depreciation is deducted from the depreciable cost of the asset (credited to the asset account) and charged (or debited) to profit and loss account. Journal entries under this recording method are as follows:

1. For recording purchase of asset (only in the year of purchase)

Asset a/c Dr. (with the cost of asset, etc.)

To Bank/Vendor a/c

2. Following two entries are recorded at the end of every year

(a) For deducting depreciation amount from the cost of the asset.

Depreciation a/c Dr. (with the amount of depreciation)

To Asset a/c

(b) For charging depreciation to profit and loss account.

Profit & Loss A/c Dr. (with the amount of depreciation)

To Depreciation A/c

3. Balance Sheet Treatment

When this method is used, the fixed asset appears at its net book value (i.e. cost less depreciation charged till date) on the asset side of the balance sheet and not at its original cost (also known as historical cost).

4.2 Creating Provision for Depreciation Account/Accumulated Depreciation Account

This method is designed to accumulate the depreciation provided on an asset in a separate account generally called ‘depreciation provision’ or ‘accumulated depreciation’. Such accumulation of depreciation enables that the asset account need not be disturbed in any way and it continues to be shown at its original cost over the successive years of its useful life. There are some basic characteristic of this method of recording depreciation, which are given below:

- Asset account continues to appear at its original cost year after year over its entire life;
- Depreciation is accumulated on a separate account instead of being adjusted into the asset account at the end of each accounting period.

The following journal entries are recorded under this method:

1. *For recording purchase of asset (only in the year of purchase)*

Asset a/c Dr. (with the cost etc.)

To Bank/Vendor A/c (cash/credit purchase)

2. Following two journal entries are recorded at the end of each year:

(a) *For crediting depreciation amount to provision for depreciation account*

Depreciation a/c Dr. (with the amount of depreciation)

To Provision for depreciation a/c

(b) For charging depreciation to profit and loss account

Profit & Loss a/c Dr. (with the amount of depreciation)

To Depreciation a/c

4.3 Balance sheet treatment

In the balance sheet, the fixed asset continues to appear at its original cost on the asset side. The depreciation charged till that date appears in the provision for depreciation account, which is shown either on the “liabilities side” of the balance sheet or by way of deduction from the original cost of the asset concerned on the asset side of the balance sheet.

Illustration 1

M/s Aditya and Bros. purchased a plant for Rs. 5,00,000 on April, 01 2010, and spent Rs. 50,000 for its installation. The salvage value of the plant after its useful life of 10 years is estimated to be Rs. 10,000. Record journal entries for the year 2010-11 and draw up Plant Account and Depreciation Account for first three years given that the depreciation is charged using straight line method if :

(i) The books of account close on March 31 every year; and

(ii) The firm charges depreciation to the asset account.

Solution

Books of Aditya and Bros.

Journal

Date	Particulars	LF	Debit Amount Rs.	Credit Amount Rs.
2010				
Apr.01	Plant a/c	Dr.	5,00,000	
	To Bank -a/c			5,00,000
	(Purchased plant for Rs.5,00,000)			
Apr.01	Plant a/c	Dr.	50,000	
	To Bank a/c			50,000
	(Expenses on installation)			
2011			54,000	
Mar.31	Depreciation a/c	Dr.		54,000
	To Plant a/c			
	(Depreciation charged on asset)			
Mar.31	Profit and Loss a/c	Dr.	54,000	
	To Depreciation a/c			54,000

(Depreciation debited to profit and loss account)

Dr. **Plant Account** **Cr.**

Date	Particulars	J.F.	Amount (₹)	Date	Particulars	J.F.	Amount (₹)
2010				2011			
Apr. 01	Bank		5,00,000	Mar. 31	Depreciation		54,000
	Bank (installation expenses)		50,000		Balance c/d		4,96,000
			5,50,000				5,50,000
2011				2012			
Apr. 01	Balance b/d		4,96,000	Mar. 31	Depreciation		54,000
					Balance c/d		4,42,000
			4,96,000				4,96,000
2012							
Apr. 01	Balance b/d		4,42,000	2013	Depreciation		54,000
				Mar. 31	Balance c/d		3,88,000
			4,42,000				4,42,000
2013							
Apr. 01	Balance b/d		3,88,000				

Dr. **Depreciation Account** **Cr.**

Date	Particulars	J.F.	Amount (₹)	Date	Particulars	J.F.	Amount (₹)
2011				2011			
Mar. 01	Plant		54,000	Mar. 31	Profit and Loss		54,000
2012				2012			
Mar. 01	Plant		54,000	Mar. 31	Profit and Loss		54,000
2013				2013			
Mar. 01	Plant		54,000	Mar. 31	Profit and Loss		54,000

Working Notes

(1) Calculation of original cost

	(Rs.)
Purchase cost	5,00,000
Add: Installation cost	50,000
Original cost	5,50,000
Salvage value	10,000
Useful life	10 years

(2) Depreciation amount = $\frac{\text{Rs. 5,50,000 – Rs. 10,000}}{10}$ = Rs. 54,000 p.a

Summary

1. *Depreciation:* It is a measure of the wearing out , consumption or other loss of value of a depreciable asset arising from use or passage of time or obsolescence by technology and market changes.
2. *Depreciable asset*: Assets which are expected to be used for more than one accounting period , have a limited useful life and /or held by a business for use in the production or supply of goods and services.
3. *Useful life:* A period over which a depreciable asset is expected to be used by an enterprise.
4. *Method of Depreciation:* The two important methods of depreciation are straight line method and written down value method.