

MODULE - IV

Depreciation, Provision and Reserves



Notes



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DEPRECIATION



Expenditure on assets of the business like furniture, fixtures and fittings of the shop, motor vans, machines and equipments are neither goods nor expenses of a year. Expenditures of this nature give services to the business for many years and therefore called fixed assets. If the expenditure on the fixed assets is deducted from the profit of any one year, it would be wrong. Since their benefit is enjoyed by the business for more than one years. The correct thing will be to distribute their cost over the years of their useful life to the business. The portion of the cost of fixed assets charged each year as expense is named as depreciation.

In this lesson you will learn about the meaning and methods of charging depreciation and how depreciation is recorded in the books of accounts, together with the preparation of Fixed Assets account.



OBJECTIVES

After studying this lesson you will be able to:

- understand the meaning and concept of depreciation;
- explain the causes of depreciation;
- explain the objectives of depreciation;
- learn methods of charging depreciation and
- prepare fixed asset account showing the amount of depreciations charged for every year.

12.1 MEANING OF DEPRECIATION

You already know the meaning of terms assets and liabilities. Assets are broadly divided in to two categories- current assets (cash, debtors or customers balances, stock of materials and goods) and fixed assets (buildings, furniture and fixtures, machinery and plant, motor vehicles).

Fixed assets are also called long term assets as they provide benefits to the business for more than one year. Most fixed assets loose their value over time as these are put in use and as the years pass by. The fixed assets loose their

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usefulness due to arrival of new technologies and change of fashions etc. These are then generally required to be replaced, as their useful life is over. Hence, the cost of a fixed asset is allocated over its useful life. Each year's allocation of the cost is charged as depreciation expense for that year.

For example an office chair is purchased for ₹ 2,500 and it is estimated that after ten years it will be scrapped. The useful life of the chair is ten years over which the cost of ₹ 2,500 will be distributed. Each year's allocation may be calculated as:-

$$\text{Depreciation} = \frac{\text{Cost of Assets} - \text{Scrap Value (if any)}}{\text{Life of Assets}}$$

$$\frac{\text{₹ 2500}}{10} = \text{₹ 250}$$

Thus ₹ 250 is the depreciation expense for each year.

Thus, depreciation is an expense charged during a year for the reduction in the value of fixed assets, arising due to:

- Normal wear and tear out of its use and passage of time
- Obsolescence due to change in technology, fashion, taste and other market conditions

12.2 CAUSES OF DEPRECIATION

Following are the causes for which depreciation is provided in accounts.

i) Normal wear and tear

- Due to usage - Every asset has a life for which it can run, produce or give service. Thus, as we put the asset to use its worth decreases. Like decrease in the efficiency and functioning of a bicycle due to its running and usage.
- Due to passage of Time – As the time goes by elements of nature, wind, sun, rain etc, cause physical deterioration in the worth of an asset. Like reduction in the worth of a piece of furniture due to passage of time even when it is not used.

ii) Obsolescence

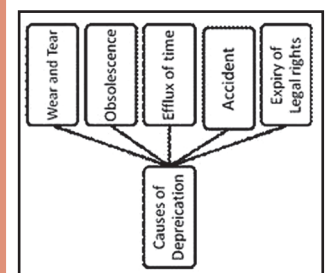
- Due to development of improved or superior equipment : Sometimes fixed assets are required to be discarded before they are actually worn out due to either of the above reasons. Arrival of superior equipments and machines etc. allow production of goods at lower cost. This makes older equipments worthless as production of goods with their use will be costlier and non

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competitive. For example, Steam engines became obsolete with the arrival of diesel and electric locomotives.

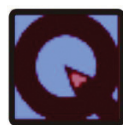
- (b) Due to change in fashion, style, taste or market conditions : Obsolescence may also result due to decline in demand for certain goods and services with a change in fashion, style, taste or market conditions. The goods and services that are no longer in vogue lead to decrease in the value of the assets which were engaged in their production - like factories or machines meant for making old fashioned hats, shoes, furniture etc.

Loss in the value of fixed assets for such reasons is called obsolescence and also charged as depreciation.

12.3 OBJECTIVES OF DEPRECIATION

Following are the objectives of charging depreciation of Assets:

- i) **To show the True Financial Position of the Business :** As are Fixed Assets have some effective working life during which it can be economically operated. Depreciation is the gradual loss in the value of fixed assets. If depreciation is not provided, profit and loss A/c will not disclose the true profit made during the accounting period. At the same, the Balance Sheet will not disclose the true Financial position as Fixed assets appearing in the Balance Sheet will be over valued. If depreciation is ignored year after year, ultimately when asset is worn out, the proprietor will not be in a position to continue the business smoothly.
- ii) **To retain funds in the business for replacement of the asset :** Net profit is the yield of the capital invested by proprietor and may be wholly withdrawn by him in the form of cash. If depreciation is provided, this figure of net profit will be reduced and the amount withdrawn by the proprietor will also be decreased. As such the cash equivalent to the change for depreciation will be left over the business. This accumulated amount will enable the proprietor to replace a new asset.



INTEXT QUESTIONS 12.1

Fill in the blanks :

- Depreciation represents a _____ in the value of fixed assets.
- Scrap value of an asset means the _____ that it fetched on sale at the end of its _____.
- Depreciation is calculated as cost of assets less scrap value divided by _____.

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- iv. Obsolescence is one of the situations on fixed assets which arises due to change in _____, and fashion, taste and other market conditions.

12.4 FACTORS AFFECTING THE DEPRECIATION

Following are the factors that affect the amount of depreciation of an asset.



- i) **Cost of Asset :** Cost of asset is the purchase price of the asset and includes all such expenses which are incurred before it is first put to use. For example expenses on loading, carriage, installation, transportation and unloading of the asset up to the point of its location, expense on its erection and assembly.
- ii) **Useful Life of the Asset :** Useful life is the expected number of years for which the asset will remain in use.
- iii) **Scrap Value :** Scrap value is the residual value at which the asset could be sold to scrap dealer (*Kabari*) after its useful life.
- iv) **Depreciable value of asset :** Depreciable value is the cost of asset minus the scrap value.

Illustration 1

A generator was purchased for ₹ 5,00,000. ₹ 1,500 was paid for the crane for its loading on the truck, ₹ 7,000 was paid for transporting the generator to the factory. ₹ 2,000 was spent on its unloading at the factory site. The generator was estimated to run for 10 years and thereafter would be saleable for ₹ 60,000. Calculate the depreciable value of the generator.

| | | |
|----------------------------|-----------------------|-------------------|
| The cost of the asset is : | Purchase price | ₹ 5,00,000 |
| | Expenses on Loading | ₹ 1,500 |
| | Transportation | ₹ 7,000 |
| | Expenses on unloading | ₹ 2,000 |
| | Total | ₹ 5,10,500 |

The useful life of the generator is 10 years

The scrap value is ₹ 60,000.

Depreciable value of the generator = ₹ 5,10,500 – ₹ 60,000 = ₹ 4,50,500

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12.5 METHOD OF CHARGING DEPRECIATION

Most popularly used methods for charging depreciation are: i. Straight Line Method and ii. Diminishing Balance Method

Straight Line Method of Depreciation

Under this method, the amount of depreciation is uniform from year to year. Suppose, if an asset costs ₹ 1,00,000 and depreciation is fixed @ 10%, then ₹ 10,000 would be written off every year. That is why this method is also called 'Fixed Installment Method' or 'Original Cost Method'. In this method, the amount to be written off every year is arrived at as under:

$$\text{Depreciation of Each Year} = \frac{\text{Cost of Assets} - \text{Estimated Scrap Value}}{\text{Number of years of expected life}}$$

Out of the cost of the asset, its scrap value is deducted and it is divided by the number of years of its estimated life.

For example: a machine is purchased for ₹ 1,20,000 and it is estimated that its useful life is 10 years. After its useful life its scrap value is ₹ 20,000. Depreciation of one year can be calculated as under:

$$\text{Depreciation of one Year} = \frac{\text{₹ 1,20,000} - \text{₹ 20,000}}{\text{₹ 10}} = \text{₹ 10,000}$$

If its scrap cannot be sold or no money can be realized from its scrap, then depreciation of one year is:

$$\text{Depreciation of one Year} = \frac{\text{₹ 1,20,000}}{\text{₹ 10}} = \text{₹ 12,000}$$

In this method the amount of depreciation is same for each year. Therefore this method is called Straight Line Method, Fixed Installment Method or Original Cost Method.

Illustration 2

A machine was purchased on January 1, 2011 for ₹ 1,00,000 and its useful life is 10 years. After completing its useful life the machine will be scrapped and nothing will be realized from it. It is decided to charge depreciation on this machine @ 10% p. a. on Straight Line Method.

Calculate amount of depreciation for each year during the useful life of this machine.

| Year | Rate of Depreciation | Amount of Depreciation (₹) |
|------|----------------------|----------------------------|
| 2011 | 10% | 10,000 |

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| | | |
|------|-----|--------|
| 2012 | 10% | 10,000 |
| 2013 | 10% | 10,000 |
| 2014 | 10% | 10,000 |
| 2015 | 10% | 10,000 |
| 2016 | 10% | 10,000 |
| 2017 | 10% | 10,000 |
| 2018 | 10% | 10,000 |
| 2019 | 10% | 10,000 |
| 2020 | 10% | 10,000 |

Amount of depreciation is same in every year, so this method is called 'Straight Line Method' or 'Fixed Installment Method' or 'Original Cost Method'.

12.6 MERITS OF STRAIGHT LINE METHOD

- i) **Simplicity :** Calculation of depreciation under this method is very simple and therefore the method is widely popular. Once the amount of depreciation is calculated, the same amount is written off as depreciation each year. Hence this method is simple and calculations are easier to understand.
- ii) **Asset is completely Written Off :** Under this method, the book value of an asset is reduced to net scrap value or zero value. In other words, in the books of accounts the value of the asset at the end of its useful life is equal to zero or its residual value.

12.7 LIMITATIONS OF STRAIGHT LINE METHOD

- i) **Difficulty in Computation :** When there are various machines having different life-spans, the computation of depreciation becomes complicated because the depreciation on each machine will have to be calculated separately for each asset.
- ii) **Illogical :** It is well known that the expense on its repairs and maintenance increases as the asset becomes older. Thus, the total burden on Profit and Loss Account, depreciation plus repair expenses, is more in later years in comparison to earlier years. This is illogical because the efficiency and productivity of the asset is more in earlier years and less in later years.

Illustration 3

X limited purchased a machine on April 1, 2011 for ₹ 1,00,000 whose life was expected to be 10 years. Its estimated scrap value at the end of 10 years was ₹ 10,000. Find the amount of depreciation to be charged to Profit and Loss Account every year. Calculate the rate on which depreciation is to be charged every year.

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Solution

In this question the information available is as under: The amount of depreciation that will be charged to Profit and Loss Account will be calculated as :

(i) Calculation of amount of depreciation

$$\begin{aligned} \text{Annual Depreciation} &= \frac{\text{Cost of Machine} - \text{Estimated Scrap Value}}{\text{Expected Life of the Asset}} \\ &= \frac{\text{₹ 1,00,000} - \text{₹ 10,000}}{\text{₹ 10}} = \text{₹ 9,000} \end{aligned}$$

(ii) Calculation of Rate of Depreciation

$$\begin{aligned} \text{Rate of Depreciation} &= \frac{\text{Annual Depreciation Amount} \times 100}{\text{Cost Asset}} \\ &= \frac{\text{₹ 9,000} \times 100}{\text{₹ 1,00,000}} = 9\% \end{aligned}$$

Illustration 4

Salman and Usman Bros. acquired a machine on July 1, 2008 at a cost of ₹ 70,000 and spent ₹ 5,000 on its installation. The firm writes off depreciation @ 10% on straight line method. The books are closed on December 31 every year. Show the machinery and depreciation account for three years.

Solution

| | |
|----------------------|----------|
| Cost of Machine | ₹ 70,000 |
| Cost of Installation | ₹ 5,000 |
| Total | ₹ 75,000 |

Rate of Depreciation is 10%.

Then annual depreciation will be 10% of 75000 = ₹ 7,500.

Dr. Depreciation Account Cr.

| Date | Particulars | J.F. | Amount | Date | Particulars | J.F. | Amount |
|-------------|------------------|------|--------|-------------|--------------|------|--------|
| 2008 | | | | 2008 | | | |
| Dec. 31 | To Machinery A/c | | 3,750 | Dec.31 | By P & L A/c | | 3,750 |
| 2009 | | | | 2009 | | | |
| Dec. 31 | To Machinery A/c | | 7,500 | Dec.31 | By P & L A/c | | 7,500 |
| 2010 | | | | 2010 | | | |
| Dec. 31 | To Machinery A/c | | 7,500 | Dec.31 | By P & L A/c | | 7,500 |

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| Dr. | | | | Cr. | | | |
|------------------------|----------------|------|---------------|------------------------|--|------|---------------|
| Machinery Account | | | | | | | |
| Date | Particulars | J.F. | ₹ | Date | Particulars | J.F. | ₹ |
| 2008 July 01 | To Bank A/c | | 70,000 | 2008 Dec. 31 | By Depreciation A/c | | 3,750 |
| | | | | | $7000 \times \frac{10}{100} \times \frac{6}{12}$ | | |
| July 01 | To Bank A/c | | 5,000 | Dec. 31 | By Balance c/d | | 71,250 |
| | | | <u>75,000</u> | | | | <u>75,000</u> |
| 2009 Jan. 01 | To Balance b/d | | 71,250 | 2009 Dec. 31 | By Depreciation A/c | | 7,500 |
| | | | | | $75000 \times \frac{10}{100}$ | | |
| | | | <u>71,250</u> | | By Balance c/d | | 63,750 |
| 2010 Jan. 01 | To Balance b/d | | 63,750 | 2010 Dec. 31 | By Depreciation A/c | | 7,500 |
| | | | | | $75000 \times \frac{10}{100}$ | | |
| | | | <u>63,750</u> | Dec. 31 | By Balance c/d | | 56,250 |
| | | | | | | | <u>63,750</u> |

Illustration 5

On April 1, 2006, a company purchases machinery worth ₹ 1,00,000 . On October 1, 2008, it purchased additional machinery worth ₹ 20,000 and spends ₹ 2,000 on its erection. The accounts are closed each year on March 31. Assuming the annual depreciation to be 10%, show the Machinery Account for 5 years under the straight line method.

Solution

| Dr. | | | | Cr. | | | |
|------------------------|----------------|------|-----------------|------------------------|--------------------------------|------|---------------|
| Machinery Account | | | | | | | |
| Date | Particulars | J.F. | ₹ | Date | Particulars | J.F. | ₹ |
| 2006 Apr. 01 | To Bank A/c | | 1,00,000 | 2007 Mar. 31 | By Depreciation A/c | | 10,000 |
| | | | | | $100000 \times \frac{10}{100}$ | | |
| | | | <u>1,00,000</u> | Mar. 31 | By Balance c/d | | 90,000 |
| 2007 Apr. 1 | To Balance b/d | | 90,000 | 2008 Mar. 31 | By Depreciation A/c | | 10,000 |
| | | | | | $100000 \times \frac{10}{100}$ | | |
| | | | <u>90,000</u> | Mar. 31 | By Balance c/d | | 80,000 |
| | | | | | | | <u>90,000</u> |

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|-------------|----------------|--|----------|-------------|---|--|----------|
| 2008 | | | | 2009 | | | |
| Apr. 1 | To Balance b/d | | 80,000 | Mar. 31 | By Depreciation A/c | | 11,100 |
| Oct. 1 | To Bank A/c | | 20,000 | | $100000 \times \frac{10}{100}$ | | |
| | | | | | $22000 \times \frac{10}{100} \times \frac{6}{12}$ | | |
| | To Bank A/c | | 2,000 | Mar. 31 | By Balance c/d | | 90,900 |
| | | | 1,02,000 | | | | 1,02,000 |
| 2009 | | | | 2010 | | | |
| Apr. 1 | To Balance b/d | | 90,900 | Mar. 31 | By Depreciation A/c | | 12,200 |
| | | | | | $100000 \times \frac{10}{100}$ | | |
| | | | | | $22000 \times \frac{10}{100} \times \frac{6}{12}$ | | |
| | | | | Mar. 31 | By Balance c/d | | 78,700 |
| | | | 90,900 | | | | 90,900 |
| 2010 | | | | 2011 | | | |
| Apr. 1 | To Balance b/d | | 78,700 | Mar. 31 | By Depreciation A/c | | 12,200 |
| | | | | | $100000 \times \frac{10}{100}$ | | |
| | | | | | $22000 \times \frac{10}{100} \times \frac{6}{12}$ | | |
| | | | | Mar. 31 | By Balance c/d | | 66,500 |
| | | | 78,000 | | | | 78,700 |
| 2011 | | | | | | | |
| Apr. 1 | To Balance b/d | | 66,500 | | | | |

Illustration 6

On 1st January, 2003 a Company purchased a plant for ₹ 20,000. On 1st July in the same year, it purchased additional plant worth ₹ 8,000 and spent ₹ 2,000 on its erection. On 1st July, 2004, the plant purchased on 1st Jan., 2003 having become obsolete, was sold off for ₹ 12,500. On 1st October, 2005, fresh plant was purchased for ₹ 28,000 and on the same date, the plant purchased on 1st July, 2003 was sold at ₹ 6,000.

Depreciation is provided at 10% per annum on original cost on 31st December every year. Show the plant account for 2003 to 2005.

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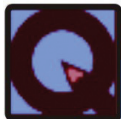
Notes

Solution

| Dr. | | | | Plant Account | | | | Cr. | | | |
|-------------|---------------------|------|--------|---------------|-----------------------------|------|--------------------|-----|--|--|--|
| Date | Particulars | J.F. | ₹ | Date | Particulars | J.F. | ₹ | | | | |
| 2003 | | | | 2003 | | | | | | | |
| Jan. 01 | To Cash A/c | | 20,000 | Dec. 31 | By Depreciation A/c | | | | | | |
| July 01 | To Cash A/c | | 8,000 | | (i) for a year 2,000 | | | | | | |
| | To Cash A/c | | | | (ii) for six months 500 | | 2,500 | | | | |
| | (expenses) | | 2,000 | | By Balance c/d | | | | | | |
| | | | | | (i) 18,000 | | | | | | |
| | | | | | (ii) 500 | | 27,500 | | | | |
| | | | 30,000 | | | | 30,000 | | | | |
| 2004 | | | | 2004 | | | | | | | |
| Jan. 1 | To Balanc b/d | | | July 1 | By Cash A/c (sale) | | 12,500 | | | | |
| | (i) 18,000 | | | Dec. 31 | By Depreciation A/c (i) | | 1,000 ¹ | | | | |
| | (ii) 9,500 | | 27,500 | | By Profit & Loss A/c | | 4,500 ¹ | | | | |
| | | | | July 1 | By Depreciation A/c (ii) | | 1,000 | | | | |
| | | | | Dec. 31 | By Balance c/d | | | | | | |
| | | | | | (₹ 9,500 - ₹ 1,000) | | 8,500 | | | | |
| | | | 27,500 | | | | 27,500 | | | | |
| 2005 | | | | 2005 | | | | | | | |
| Jan. 1 | To Balance b/d (ii) | | 8,500 | Oct. 1 | By Cash A/c (sale) | | 6,000 | | | | |
| Oct. 1 | To Cash A/c (iii) | | 28,000 | Oct. 1 | By Depreciation A/c (ii) | | 750 ² | | | | |
| | | | | Oct. 1 | By Profit & Loss A/c (loss) | | 1,750 | | | | |
| | | | | Dec. 31 | By Depreciation A/c (iii) | | | | | | |
| | | | | | (28,000 x 10/100 x 3/12) | | 700 | | | | |
| | | | | Dec. 31 | By Balance c/d | | | | | | |
| | | | | | (₹ 28,000 - ₹ 700) | | 27,300 | | | | |
| | | | 36,500 | | | | 36,500 | | | | |

Note : Calculation of loss on sale of plant :

| | ₹ |
|--|--------|
| (i) On 1-1-2004 book value of the plant sold [Plant (i)] | 18,000 |
| Less : Depreciation for 6 months i.e. $20,000 \times 10/100 \times 6/12$ | 1,000 |
| On 1-7-2004 book value of plant sold | 17,000 |
| Less : Sale price of plant | 12,500 |
| Loss on sale of plant | 4,500 |
| (ii) On 1-1-2005 book value of plant sold [Plant (ii)] | 8,500 |
| Less : Depreciation for 9 months is $10,000 \times 10/100 \times 9/12$ | 750 |
| On 1-10-2005 book value of plant sold | 7,750 |
| Less : Sale Price | 6,000 |
| Loss on Sale of Plant | 1,750 |

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and Reserves****Notes****Depreciation****INTEXT QUESTIONS 12.2****Fill in the blanks :**

- i. The assumption underlying the fixed installment method of depreciation is that the amount of the fixed assets over different years of its useful life remain the _____.
- ii. Straight line method of charging depreciation is also known as _____ or _____.
- iii. Under straight line method the value of the assets at the end of its useful life is equal to _____ or its _____.
- iv. Under straight line method the total burden on Profit and Loss Account in Comparison to earlier years is _____.

12.8 DIMINISHING BALANCE METHOD

Under this method, as the value of asset goes on diminishing year after year, the amount of depreciation charged every year goes on declining. The amount of depreciation is calculated as a fixed percentage of the diminishing value of the asset shown in the books at the beginning of each year. Under this method the value of an asset never comes to zero.

Suppose, the cost of the asset is ₹ 40,000 and the percentage to be written off each year is 10%. In the first year the amount of the depreciation will be ₹ 4,000 i.e., 10% of ₹ 40,000. This will reduce the book value to ₹ 36,000 i.e., ₹ 40,000 – ₹ 4,000. Now, at the beginning of the next year the book value is ₹ 36,000. The amount of the depreciation for the next year will be ₹ 3,600, i.e., 10% of ₹ 36,000. Thus, every year the amount of the depreciation will go on reducing. This method of charging depreciation is also known as Reducing Balance Method or written down value method.

Illustration 7

A machine was purchased on January 1, 2011 for ₹ 1,00,000 and its useful life is 10 years. After completing its useful life the machine will be scrapped and ₹ 4,000 will be realized from it. It is decided to charge depreciation on this machine @ 10% p. a. on Diminishing Balance Method.

Calculate amount of depreciation for each year during the useful life of this machine.

Depreciation

Solution

| Year | Rate of Depreciation | Amount of Depreciation |
|------|----------------------|------------------------|
| 2011 | 10% | 10,000 |
| 2012 | 10% | 9,000 |
| 2013 | 10% | 8,100 |
| 2014 | 10% | 7,290 |
| 2015 | 10% | 6,561 |
| 2016 | 10% | 5,905 |
| 2017 | 10% | 5,314 |
| 2018 | 10% | 4,783 |
| 2019 | 10% | 4,305 |
| 2020 | 10% | 3,874 |

Amount of depreciation is decreased year after year in this method that is why this method is called 'Diminishing Balance Method' or 'Reducing balance method' or 'written down value method'.

12.9 MERITS OF DIMINISHING BALANCE METHOD

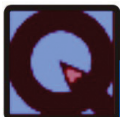
i) Equal Burden on Profit & Loss Account

The productivity of the asset is more hence its contribute to profit is also relatively greater. Therefore the cost charged in terms of depreciation should also be greater.

In the initial year, the depreciation charges are more and repair expenses are less. In later years, depreciation charges are less and repair expenses are more. Hence the total burden, depreciation plus repair expenses, is some what equal on Profit & Loss Account for each year.

12.10 DEMERITS OF DIMINISHING BALANCE METHOD

- i) **Asset cannot be completely written off :** Under this method, the value of an asset is not reduced to zero even when there is no scrap value.
- ii) **Complexity :** Under this method, the rate of depreciation cannot be determined easily.



INTEXT QUESTIONS 12.3

Fill in the blanks with suitable words

- (i) Depreciation represents a _____ in the value of fixed assets.
- (ii) The amount of depreciation on machinery is credited to _____ account.
- (iii) Depreciation is calculated on _____ under the straight line method.



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- (iv) Depreciation is calculated on _____ under the diminishing balance method.
- (v) The value of an assets is not reduced to _____ even when there is no scrap value in diminishing balance method of depreciation.

Illustration 8

Widson enterprise purchases Plant and Machinery for ₹ 1,00,000 on 1st October 2012. It decides to write off depreciation 20% per annum on Written Down Value Method. On 1st January, 2015 purchases additional Machinery for ₹ 40,000.

Show Machinery Account upto the year ending 31st March, 1996. The accounting year ends on 31st March.

Solution

| Dr. | | | | Plant and Machinery Account | | | | Cr. | | | |
|-------------|----------------|------|----------|-----------------------------|---|------|----------|-----|--|--|--|
| Date | Particulars | J.F. | ₹ | Date | Particulars | J.F. | ₹ | | | | |
| 2012 | | | | 2013 | | | | | | | |
| Oct. 01 | To Bank | | 1,00,000 | Mar. 31 | By Depreciation (for six months) | | 10,000 | | | | |
| | | | | | By Balance c/d | | 90,000 | | | | |
| | | | 1,00,000 | | | | 1,00,000 | | | | |
| 2013 | | | | 2014 | | | | | | | |
| Apr. 01 | To Balance b/d | | 90,000 | Mar. 31 | By Depreciation (on ₹ 90,000 for one year) | | 18,000 | | | | |
| | | | | | By Balance c/d | | 72,000 | | | | |
| | | | 90,000 | | | | 90,000 | | | | |
| 2014 | | | | 2015 | | | | | | | |
| Apr. 01 | To Balance b/d | | 72,000 | Mar. 31 | By Depreciation (On ₹ 72,000) for one year ₹ 14,400 On ₹ 40,000 for 3 months ₹ 2,000 | | 16,400 | | | | |
| 2015 | | | | | By Balance c/d | | 95,600 | | | | |
| Jan. 01 | To Bank | | 40,000 | | | | 1,12,000 | | | | |
| | | | | | | | 1,12,000 | | | | |
| | | | 1,12,000 | 2016 | | | | | | | |
| 2015 | | | | Mar. 31 | By Depreciation (On ₹ 96,600 for one year) | | 19,120 | | | | |
| Apr. 01 | To Balance b/d | | 95,600 | | By Balance c/d | | 76,480 | | | | |
| | | | | | | | 95,600 | | | | |
| | | | 95,600 | 2016 | | | | | | | |
| 2016 | | | | Apr. 01 | To Balance b/d | | 76,480 | | | | |
| Apr. 01 | To Balance b/d | | 76,480 | | | | | | | | |

Depreciation

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Depreciation, Provision and Reserves



Notes

Illustration 9

On April 1, 2009 Ganga Bros. purchased two machines for ₹ 75,000 each. Depreciation at the rate of 10% on diminishing balance method was provided. On March 31, 2011, one machine was sold for ₹ 55,000. An improved model with a cost of ₹ 80,000 was purchased on the same day. You are required to show the Machinery Account for 2009-10 to 2010-11.

Solution

Dr. Machinery Account Cr.

| Date | Particulars | J.F. | ₹ | Date | Particulars | J.F. | ₹ |
|-------------|----------------|------|----------|-------------|---------------------|------|----------|
| 2009 | | | | 2010 | | | |
| Oct. 01 | To Bank | | 1,50,000 | Mar. 31 | By Depreciation A/c | | 15,000 |
| | | | | Mar. 31 | By Balance c/d | | 1,35,000 |
| | | | 1,50,000 | | | | 1,50,000 |
| 2010 | | | | 2011 | | | |
| Apr. 01 | To Balance b/d | | 1,35,000 | Mar. 31 | By Depreciation A/c | | 13,500 |
| Mar. 31 | To Bank A/c | | 80,000 | Mar. 31 | By Bank A/c | | 55,000 |
| | | | | | By P & L A/c | | 5,750 |
| | | | | | By Balance c/d | | 1,40,750 |
| | | | 2,15,000 | | | | 2,15,000 |
| 2011 | | | | | | | |
| Apr. 01 | To Balance b/d | | 1,40,750 | | | | |

Note : Calculation of loss on sale of machine :

| | |
|--------------|----------|
| Initial Cost | 75,000 |
| Dep. in 2010 | - 7,500 |
| | 67,500 |
| | - 6,750 |
| | 60,750 |
| | - 55,000 |
| Loss on Sale | 5,750 |

Illustration 10

On October 1, 2008, the Akash Transport Company purchased a Truck for ₹ 8,00,000. On April 1, 2010, this Truck was involved in an accident and was completely destroyed and ₹ 6,00,000 were received from Insurance Company in full settlement. On the same date another Truck was purchased by the company for ₹ 10,00,000. The company writes off 20% depreciation p. a. on written down value method. Give the Truck Account from 2008 to 2010.

MODULE - IV

Depreciation, Provision and Reserves



Notes

Depreciation

Solution

| Dr. | | | | Truck Account | | | | Cr. | | | |
|-------------|----------------|------|-----------|---------------|--|------|-----------|-----|--|--|--|
| Date | Particulars | J.F. | ₹ | Date | Particulars | J.F. | ₹ | | | | |
| 2008 | | | | 2008 | | | | | | | |
| Oct. 01 | To Bank A/c | | 8,00,000 | Dec. 31 | By Depreciation A/c | | 40,000 | | | | |
| | | | | | $8,00,000 \times \frac{20}{100} \times \frac{3}{12}$ | | | | | | |
| | | | | Dec. 31 | By Balance c/d | | 7,60,000 | | | | |
| | | | 8,00,000 | | | | 8,00,000 | | | | |
| 2009 | | | | 2009 | | | | | | | |
| Jan. 01 | To Balance b/d | | 7,60,000 | Dec. 31 | By Depreciation A/c | | 1,52,000 | | | | |
| | | | | | $7,60,000 \times \frac{20}{100}$ | | | | | | |
| | | | | Dec. 31 | By Balance c/d | | 6,08,000 | | | | |
| | | | 7,60,000 | | | | 7,60,000 | | | | |
| 2010 | | | | 2010 | | | | | | | |
| Jan. 01 | Balance b/d | | 6,08,000 | Apr. 01 | By Bank A/c | | 6,00,000 | | | | |
| Apr. 01 | To P & L A/c | | 22,400 | Apr. 01 | By Depreciation A/c | | 30,400 | | | | |
| | | | | | $6,08,000 \times \frac{20}{100} \times \frac{3}{12}$ | | | | | | |
| Apr. 01 | To Bank A/c | | 10,00,000 | Dec. 31 | By Depreciation A/c | | 1,50,000 | | | | |
| | | | | | $1,00,000 \times \frac{20}{100} \times \frac{9}{12}$ | | | | | | |
| | | | | Dec. 31 | By Balance c/d | | 8,50,000 | | | | |
| | | | 16,30,400 | | | | 16,30,400 | | | | |

Distinction between Straight Line Method and Diminishing Balance Method

| Basis | Straight Line Method | Diminishing Balance Method |
|------------------------|--|---|
| Basis of Calculation | Depreciation is calculated on original cost of the asset. | Depreciation is calculated on original cost in first year and on written down value of the asset in subsequent years. |
| Amount of Depreciation | The amount of depreciation remains the same for all years. | The amount of depreciation goes on reducing year after year. |
| Value of Asset | The book value of the asset can be reduced to zero. | The book value of the asset can never be reduced to zero. |

Depreciation

| | | |
|--------------------------|---|--|
| Depreciation and Repairs | The combined cost on account of depreciation and repairs is lower in the initial years and higher in the later years. | The combined cost on account of depreciation and repairs remains, more or less, equal throughout the period. |
|--------------------------|---|--|



INTEXT QUESTIONS 12.4

I. State which of the following statements are true and which are false:

- i. Amount of depreciation goes on reducing year after year in Straight Line Method.
- ii. The amount of depreciation remains the same for all years in Diminishing Balance Method.
- iii. The book value of the asset can be reduced to zero in Straight Line Method.
- iv. The book value of the asset can never be reduced to zero in Diminishing Balance Method.

II. Multiple Choice Questions

- i. Depreciation is charged on :
 - a) Stock of Goods
 - b) Current Assets
 - c) Fixed Assets
 - d) Liquid Assets
- ii. Obsolescence term is used for :
 - a) Tear and wear of the Assets
 - b) Decrease in the value of the assets which are engaged in production
 - c) Development of improved or superior quality of equipment.
 - d) Due to usage and age of assets
- iii. Changing depreciation on Fixed Assets by Straight line method. The value of the asset is taken into consideration:
 - a) Original value
 - b) Diminished value
 - c) Scrap value
 - d) Book value
- iv. Charging depreciation on Fixed assets by Reducing balance method, the value of the asset is taken into consideration.
 - a) Original cost method
 - b) Diminished value
 - c) Scrap value
 - d) Book value
- v. The amount calculated for charging depreciation :
 - a) Includes the amount of scrap value of the Asset
 - b) Do not include the amount of scrap value of the asset
 - c) Cost of assets less scrap value
 - d) None of the above.

MODULE - IV

Depreciation, Provision and Reserves



Notes

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Depreciation, Provision and Reserves



Notes

Depreciation

- vi. Out of the following which is not the cause of depreciations:
 - a) Normal wear and tear
 - b) Obsolescence
 - c) Cost of asset.
 - d) Decrease or increase in market price
- vii. Out of the following what will be before annual depreciations :
 - a) Total Depreciation + Plus installation charges cost
 - b) Total cost – Scrap value ÷ Expected life
 - c) Total cost + Scrap value ÷ Expected life
 - d) None of the above.
- viii. Which one of the following is not a factor affecting annual depreciation on an asset.
 - a) Cost of the Asset
 - b) Scrap Value of the asset
 - c) Useful life of the asset
 - d) Annual maintenance on the asset.
- ix. Out of the following on which asset depreciation will be charged :
 - a) Stock
 - b) Debtors
 - c) Machinery
 - d) Land
- x. Out of the following assets on which depreciation will not be charged:
 - a) Machinery
 - b) Plant
 - c) Photo Copier
 - d) Stock



WHAT YOU HAVE LEARNT

- Depreciation is the gradual and permanent decrease in the value of an asset due to defluxion of time, wear and tear, obsolescence or any other reason.
- **Causes of Depreciation**
 - Physical Wear and Tear due to usage
 - Physical wear and tear due to passage of time
 - Obsolescence due to advancement in technology
- **Objective of Depreciation**
 - To show the True Financial Position of the business.
 - To retain funds in the business for replacement of the Asset.
- **Methods of Charging Depreciation**
 - Straight Line Method
 - Diminishing Balance Method
- **Merits of Straight Line Method**
 - Simplicity
 - Assets can be Completely Written Off
- **Demerits of Straight Line Method**
 - Difficulty in Computation
 - Illogical

Depreciation

- **Merits of Diminishing Balance Method**
 - Equal burden on Profit & Loss Account.
 - Balance of Asset is never written Off to Zero
- **Demerits of Diminishing Balance Method**
 - Asset can not be completely written off
 - Complexity



TERMINAL EXERCISE

1. What is depreciation? Write the various objectives of providing depreciation.
2. What are the causes of providing depreciation?
3. What are the two methods of providing depreciation? Explain their merits and demerits.
4. What are the objectives of providing depreciation?
5. Distinguish between Straight Line Method and Diminishing Balance Method of Depreciation.
6. Krishnamohan Limited purchased a machinery on October 1, 2008 for ₹ 90,000 and spent ₹ 10,000 on its erection. The depreciation is to be charged @ 10% p. a. on original cost. Show the Machinery Account for three years if books are closed on March 31 every year.
7. On April 1, 2008 Asahi Limited purchased a machinery for ₹ 80,000 and spent ₹ 20,000 on its repairs and installation. On September 30, 2011, the machinery was sold for ₹ 60,000. Prepare Machinery Account for the year 2008 to 2011, if depreciation is charged @ 10% p. a. by Straight Line Method.
8. Ajay Kumar and Company purchased machinery for ₹ 20,000 on April 1, 2007. The Machinery is depreciated at 10% per annum on the straight line method. On October 1, 2010, the machinery was sold for ₹ 8,000. Give the Machinery Account if books are closed on March 31 every year.
9. A Plant is purchased for ₹ 80,000 on January 1, 2008. It is estimated that the residual value of the plant at the end of its working life of 10 years will be ₹ 27,894. Depreciation is to be provided at 10% p.a. on diminishing balance method.
You are required to show the Plant Account for 4 years assuming that the books are closed on March 31 every year.
10. On January 1, 1987 Machinery Account showed a balance of ₹ 10,000. On 1st July, 1988, a new machine costing ₹. 6,000 was purchased. On 30th June, 1990, Machinery other than the machine bought on 1st July, 1988, was disposed of for ₹ 6,000.

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Depreciation, Provision and Reserves



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Notes

Depreciation

Show the Machinery Account for four years. The accounting year ends on 31st December, and depreciation is to be provided at 10% p.a. on written down value.



ANSWER TO INTEXT QUESTIONS

- 12.1** i) Diminution ii) Amount, life iii) Life of assets iv) Technology
- 12.2** i) Same
ii) Fixed in statement method, Original cost method
iii) Zero, Net Scrap value iv) More
- 12.3** i) Falls ii) Machinery iii) Original cost
iv) Opening balance of the year v) Zero
- 12.4** **I.** i) False ii) False iii) True iv) True
- II.** i) c ii) c iii) a iv) b v) c
vi) d vii) b viii) d ix) c x) d

ACTIVITY FOR YOU

- Ask your parents about the date of various fixed assets purchased by them like T.V., Fridge, Motorcycle, Car etc., with its useful life and then calculate the amount of depreciation to be charged on each asset.