Depreciation - 5 marks

Methods of Providing Depreciation:

1. Original Cost Method

2. Diminishing Balance Method

3. Sinking Fund or Depreciation Fund Method

4. Insurance Policy Method

1. Original Cost Method

Case 1: When life of Asset is given:

Depreciation = Cost of asset - Estimated net residential value /Estimated useful life of the asset

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Q. 1. Calculate the amount of Annual Depreciation and Rate of Depreciation under Straight Line Method (SLM)

Purchased a Second Hand Machine for Rs 96,000, spent Rs 24,000 on its cartage, repairs and Installation, estimated useful life of Machine 4 years. Estimated residual/salvage/scrape Value Rs 72,000.

Soln.

Cost of second hand machine = Purchase Price + Cartage, repairs & installation charge

= 96,000 + 24,000 = 1,20,000

Annual Depreciation = Cost of Machine – Salvage Value

Est. life of Assets

= 1,20,000- 72,000

4 years

= 12,000

Rate of Depreciation = Annual Dep x 100

Cost of Machine.

= 12,000 x 100

1,20,000

= 10% Ans

Q. 2. Given,

Cost of Machine = 4,00,000+ 50,000 = 4,50,000 (1st April, 2016)

Life (n) = 10 years, residual value = 50,000

Fixed Instalment Method/ Straight Line Method

(i) Find the amount of Annual Dep.

(ii) Prepare Machinery Account for 3 years

Account closed on 31st March every year.

Soln.

Annual Dep. = Cost of Machine – Salvage Value

Est. life of Assets

= 4,50,000 – 50,000/ 10 years = RS 40,000

Q. 6 Page 211 Ashmita

Given,

Purchased a Machinery ( 1- Baisakh 2073) = 2,00,000

Purchased a Machinery ( 1- Kartik 2074) = 1,00,000

On 30 th , Aswin 2075, Sold which was purchased on 1 st Baisakh 2073 = 1,60,000

On the Same date another Machine Purchased = Rs 1,50,000

Dep = 10% p.a. Straight Line Method. Account closed on 31st Chaitra each year.

Required: Machinery A/c for 2073 to 2075

Soln.

Machinery A/c for 2073 to 2075

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Par.. | J.F. | Rs | Date | Par.. | J.F. | Rs |
| 2073-1-1 | To Bank a/c  (Purchase) |  | 2,00,000 | 2073-12-30  “ “ | By Depreciation a/c  (2,00,000 x 10%)  By Balance c/d |  | 20,000  1,80,000 |
|  |  |  | 2,00,000 |  |  |  | 2,00,000 |
| 2074-1-1  7-1 | To balance b/d  To Bank a/c  (Purchase) |  | 1,80,000  1,00,000 | 2074-12-30 | By Depreciation a/c  (i)  (ii) 1,00,000 x10% x 6/12  By Balance c/d |  | 20,000  5,000  2,55,000 |
|  |  |  | 2,80,000 |  |  |  | 2,80,000 |
| 2075-1-1  6-30  “ “ | To balance b/d  To Bank (Purchase)  To Profit on Sales |  | 2,55,000  1,50,000  10,000 | 2075-6-30  12-30 | By Bank (Sales)  By Dep. (i) 6 months  By Dep  (ii)  (iii) 1,50,000 x 10% x 6/12  By Balance c/d |  | 1,60,000  10,000  10,000  7,500  2,27,500 |
|  |  |  | 4,15,000 |  |  |  | 4,15,000 |
| 2076-1-1 | To balance b/d |  |  |  |  |  |  |

4,15,000 - 187,500=

Profit or Loss = Sales Value – Book Value

= 1,60,000 – 1,50,000 = 10,000 (Profit)

Book Value = Cost – total Dep = 2,00,000 – (20,000+ 20,000+ 10,0000

= 1,50,000

Q. 8. A Ltd Company Purchased two Jeeps at Rs 20,00,000 each on Baisakh 1, 2073. The company purchased another Jeep on Kartik 1, 2074 at a cost of Rs 22,00,000. On Chaitra 31, 2074 the company sold one Jeep Purchased on Baisakh 1, 2073 for Rs 17,00,000. Dep. Is charged at 10% using Fixed Instalment Method. Accounts are closed on 31st Chaitra each year.

Required : Vehicle a/c for 2073 to 2075.

Soln.

Dr Vehicle a/c for 2073 to 2075. Cr

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Par | J.F | RS | Date | P | J.F | Rs |
| 2073 Bai 1 | To Bank a/c  (Purchase) two (I & ii) |  | 40,00,000 | 2073 Chaitra 31 | By Dep  (I & II)  By Balance c/d |  | 4,00,000  36,00,000 |
|  |  |  | 40,00,000 |  |  |  | 40,00,000 |
| 2074 Bai 1  Kartik 1, 2074  Chaitra 31 | To balance b/d  To Bank a/c (iii)  (Purchase)  To Profit on Sales |  | 36,00,000  22,00,000  1,00,000 | 2074 Chaitra 31  “ “ | By Bank a/c (Sales) (i)  By Dep,(I)  By Dep.  (ii)  (iii) 22,00,000x10/100x6/12  By Balance c/d (Dr – Cr) |  | 17,00,000  2,00,000  2,00,000  1,10,000  26,90,000 |
|  |  |  | 49,00,000 |  |  |  | 49,00,000 |
| 2075 Bai 1 | To balance b/d |  | 26,90,000 | 2075 Chaitra 31 | By Dep. (ii)  (iii)  By Balance c/d |  | 2,00,000  2,20,000 |
|  |  |  | 26,90,000 |  |  |  | 26,90,000 |

Book Value = Cost – total Dep = 20,00,000 – (2,00,000 + 2,00,000) = 16,00,000

Profit or Loss = Sales Value – Book Value

= 17,00,000 -16,00,000 = 1,00,000 Profit

Q. 4, 5 and 7 HW.

**Written Down Value Method/ Diminishing Balance Method/Reducing Balance Method:**

Q. 14. A company whose accounting year is calendar year purchase a vehicle on 1st Baisakh 2072 for Rs 2,00,000. It Further purchased another vehicle costing Rs 2,50,000 on 1st Kartik 2073. On 1st Kartik 2074, original vehicle was found unsuitable and disposed off for Rs 1,40,000.It was replaced on that date by new vehicle costing Rs 3,00,000. Dep. Is to be provided at the rate of 10% p.a. on written down value method.

Required: Vehicle A/C from 2072 to 2074

Ans. Balanace 4,98,750

Soln : Annual Dep (1st year) = cost x dep. Rate/100

Annual Dep (2nd year) = To balance b/d x dep. Rate/100

Dr Vehicle a/c for 2072 to 2074 Cr

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Par | J.F | RS | Date | P | J.F | Rs |
| 2072 Bai 1 | To Bank a/c  (Purchase) two (I ) |  | 2,00,000 | 2072 Chaitra 31 | By Dep  2,00,000x10/100  (I )  By Balance c/d |  | 20,000  1,80,000 |
|  |  |  | 2,00,000 |  |  |  | 2,00,000 |
| 2073 Bai 1  Kartik 1, 2074 | To balance b/d  To Bank a/c (ii)  (Purchase) |  | 1,80,000  250,000 | 2073 Chaitra 31  “ “ | By Dep,  (I)1,80,000x10%  (ii)250,000x%10x6/12  By Balance c/d (Dr – Cr)  (180,000-18,000=162,000)  250,000-12,500= 2,37,500 |  | 18,000  12,500  3,99,500 |
|  |  |  | 4,30,000 |  |  |  | 4,30,000 |
| 2074 Bai 1  2074  Kartik 1 | To balance b/d  To Bank a/c (iii)  (Purchase) |  | 3,99,500  3,00,000 | 2074  Kartik 1  2074 Chaitra 31 | By Bank (Sales)  Dep. (i)1,62,000x10/100x6/12  By Loss on Sales  By Dep.  (ii) 2,37,500x10%  (iii) 3,00,000x10%x6/12  By Balance c/d (Dr-cr) |  | 1,40,000  8,100  13,900  23,750  15,000  4,98,750 |
|  |  |  | 6,99,500 |  |  |  | 6,99,500 |
| 2075 Bai 1 | To balance b/d |  | 4,98,750 |  |  |  |  |

Book Value = Cost – total Dep = 2,00,000 – (20,000+18,000+8,100)

Or = b/d of LY – Dep. CY = 162,000 – 8100 = 1,53,900

Profit or Loss = Sales Value – Book Value

= 1,40,000 – 1,53,900 = 13,900 Loss

# **Sinking Fund/ Depreciation Fund Method**:

Under this method, not only depreciation is charged on assets, but provision is also made for the purchase of new asset at the end of the life of old assets. The amount written off as depreciation every year is kept aside and invested in easily realizable securities. The interest received on the securities is also invested. Thus, the securities are accumulated at compound interest. At the end of the life of the old asset, the securities are sold and a new asset is purchased with the sale proceeds.

**Entries for the First Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Par.. | L.F. | Dr (Rs) | Cr (Rs) |
| Purchase Date  End of year  End of year  End of year | 1. When the Asset is Purchased:  Asset a/c Dr  To Bank a/c  (Being Asset Purchased)  2. When Depreciation is Provided:  Depreciation a/c Dr  To Sinking Fund/Dep. Fund  (Dep. Provided)  3. When Dep. Transferred to P& L a/c  Profit & Loss a/c Dr  To Dep. a/c  (Dep. Transferred to P& L a/c)  4. When the amount of Dep is invested.  Sinking Fund Investment a/c Dr  To Bank a/c  (amount of Dep is invested) |  |  |  |

**Entries for 2nd Year and Subsequent Year**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Par.. | L.F. | Dr (Rs) | Cr (Rs) |
| End of year  End of year  End of year  End of year  End of year | 1. When Depreciation is Provided:  Depreciation a/c Dr  To Sinking Fund/Dep. Fund  (Dep. Provided)  2. When Dep. Transferred to P& L a/c  Profit & Loss a/c Dr  To Dep. a/c  (Dep. Transferred to P& L a/c)  3. When interest on dep. Fund Investment is received:  Bank a/c Dr  To interest on dep. Fund Investment  (interest on dep. Fund Investment is received)  4. When interest is transferred to Sinking Fund a/c:  Interest on Sinking Fund a/c Dr  To Sinking Fund a/c  **Combined entry of 3 & 4:**  **Bank a/c Dr**  **To Sinking Fund a/c**  **(Interest received on Sinking Fund Investment and Credited to Sinking Fund a/c)**  5.When the interest and amount of Dep both are invested.  Sinking Fund Investment a/c Dr  To Bank a/c  (amount of Dep is invested) |  |  |  |

**Entries for the Last Year**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Par.. | L.F. | Dr (Rs) | Cr (Rs) |
| End of year  End of year  End of year  End of year  End of year | 1. When Depreciation is Provided:  Depreciation a/c Dr  To Sinking Fund/Dep. Fund  (Dep. Provided)  2. When Dep. Transferred to P& L a/c  Profit & Loss a/c Dr  To Dep. a/c  (Dep. Transferred to P& L a/c)  3. When interest on dep. Fund Investment is received:  Bank a/c Dr  To dep. Fund / Sinking Fund  (interest on dep. Fund Investment is received)  4. When the Investment is sold:  **Bank a/c Dr**  **To** Sinking Fund Investment a/c  5. For Profit on Sale of Investment:  Sinking Fund Investment a/c Dr  To Sinking Fund a/c  6. For Loss on Sales:  Sinking Fund a/c Dr  To Sinking Fund Investment a/c  7. For Dep Fund/ Sinking Fund is transferred to Asset a/c:    Sinking Fund a/c Dr  To Asset  8. For Sale of Scrap (old Asset):  Bank a/c Dr  To Asset  9. For Closing the Asset:  For Profit on Sale of Asset.  Asset a/c Dr  To P& L a/c  For Loss on Sales  P & L a/c Dr  To Asset a/c  10. For Purchase of New Asset:  Asset a/c Dr  To Bank a/c |  |  |  |

IIIustration 8. XYZ Company acquired 3 years lease on Baishak 1,2067 for Rs. 50,000. It is decided to provide show that to provide the replacement of the lease at the end of 3 years by setting up a depreciation fund. Sinking fund tables show that to provide the requisite sum at 5% at the end of 3 years an investment of Rs. 15,860 required every year. On 31st Chaitra 2069, the investment are sold for Rs. 33,100 . On 1st Baisakh, 2070 a new 5 years lease acquired for Rs. 100,000. Accounts are closed on 31st Chaitra every year.

Required:

a. Journal entries for 3 years.

b. Sinking fund account for 3 years.

c. Sinking fund investment account for 3 year.

d. Lease account for 3 year.

Soln.

(b) Dr Sinking Fund a/c

Or Depreciation Fund a/c Cr

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Par.. | J.F. | Rs | Date | Par.. | J.F. | Rs |
| 31-12-067 | To balance c/d |  | 15,860 | 31-12-067 | By Depreciation |  | 15,860 |
|  |  |  | 15,860 |  |  |  | 15,860 |
| 31-12-2068 | To balance c/d |  | 32,513 | 1-1-2068  31-12-068  “ “ | By Balance b/d  By Depreciation  By Bank  ( Interest )  15,860x5/100 |  | 15,860  15,860  793 |
|  |  |  | 32,513 |  |  |  | 32,513 |
| 31-12-069 | To Lease A/c  (Transferred) |  | 50,585 | 1-1-069  31-12-069  “ “  “ “ | By Balance b/d  By Depreciation  By Bank (interest)  32,513x5/100  By Sinking Fund Investment (Profit on Sale of Investment) |  | 32,513  15,860  1625  587 |
|  |  |  | 50,585 |  |  |  | 50,585 |

Profit or Loss on Sale of Investment = Sales Value – Investment made

= 33,100 – 32,513 = 587 Profit

Sinking Fund Investment (Asset)

Or Depreciation Fund Investment a/c

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Par.. | J.F. | Rs | Date | Par.. | J.F. | Rs |
| 31-12-067 | To Bank a/c |  | 15,860 | 31-12-067 | By balance c/d |  | 15,860 |
|  |  |  | 15,860 |  |  |  | 15,860 |
| 1-1-2068  31-12-2068 | To balance b/d  To Bank  (Dep + Interest)  15860 + 793) |  | 15,860  16,653 | 31-12-068  “ “ | By Balance c/d |  | 32,513 |
|  |  |  | 32,513 |  |  |  | 32,513 |
| 1-1-069  31-12-069 | To balance b/d  To Sinking Fund  (Profit on sale of Investment) |  | 32,513  587 | 31-12-069  “ “  “ “ | By Bank a/c  (Sale of Investment) |  | 33,100 |
|  |  |  | 33,100 |  |  |  | 33,100 |

Lease a/c (Asset)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Par.. | J.F. | Rs | Date | Par.. | J.F. | Rs |
| 1-1-067 | To Bank a/c  (Asset Purchase) |  | 50,000 | 31-12-067 | By balance c/d |  | 50,000 |
|  |  |  | 50,000 |  |  |  | 50,000 |
| 1-1-2068  31-12-2068 | To balance b/d |  | 50,000 | 31-12-068  “ “ | By Balance c/d |  | 50,000 |
|  |  |  | 50,000 |  |  |  | 50,000 |
| 1-1-069  31-12-069 | To balance b/d  To Profit & Loss a/c (Profit) |  | 50,000  585 | 31-12-069  “ “  “ “ | By Sinking Fund  (Transferred from sinking fund) |  | 50,585 |
|  |  |  | 33,100 |  |  |  | 50,585 |
| 1-1-2070 | To Bank a/c  (Lease Purchase) |  | 1,00,000 |  |  |  |  |