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The Straight-Line Method

Cost = 75000 Salvage Value = 6000

Dep. Value = 75000 − 6000
= 69000

Dep. rate = $\frac{100}{6}$
= 16.67

Year	Dep. Value	Dep. rate	Annual Dep.	Accumulated Dep.	Ending Book value
1	69000	16.67 %	11502.3	11502.3	63497.7
2	69000	16.67 %	11502.3	23004.5	51995.5
3	69000	16.67 %	11502.3	34506.9	40493.1
4	69000	16.67 %	11502.3	46009.2	28990.8
5	69000	16.67 %	11502.3	57511.5	17488.5
6	69000	16.67 %	11502.3	69013.8	5986.2

Unit of Activity Method

Dep. Value = 69000

Unit in 6th year = (85000 − 68000)
= 17000

Dep. rate = $\frac{69000}{85000}$
= 0.81176

Year	Units	Dep. Cost/Unit	Annual Dep.	Accumulated Dep.	Ending Book Value
1	17000	0.81176	13799.92	13799.92	61200.08
2	11000	0.81176	8929.36	22729.28	52270.72
3	15000	0.81176	1276.4	34905.68	40094.32
4	12000	0.81176	9741.12	44646.8	30353.2
5	13000	0.81176	10552.88	55199.68	19800.32
6	17000	0.81176	13799.92	68999.6	6000.4

Declining Balance Method

Dep. rate = 2x dep. rate of straight line

= 2 × 16.67

= 33.34 %.

Year	Beg. Book value	Dep. rate	Annual Dep	Accumulated Dep.	Ending Book value
1	75000	33.34%	25002	25002	49995
2	49995	33.34%	16668.333	41673.333	33326.667
3	33326.667	33.34%	11111.11078	52784.44378	22215.55622
4	22215.55622	33.34%	7406.66644	60191.11022	14808.88978
5	14808.88978	33.34%	4937.28385	65128.39407	9871.60593
6	9871.60593	39.2196%	3871.60593	69000	6000

6th year Annual Dep = 9871.60593 − 6000

= 3871.60593

$$\text{6th year Dep rate} = \frac{3871.60593}{9871.60593} \times 100$$

= 39.2196%

b)

The most appropriate method for depreciation calculation for the asset depends on various factors such as the nature of the asset, its expected useful life, the method of its usage, and its residual value

In this case, the most appropriate method would be the units of the activity method since the number of tiffin boxes produced is directly propotional to the machine's usage. As the machine produces more tiffin boxes, the depretiation expense increase, which is more accurate than using the straight-line method or double declining balance method, which assumes a constant rate of depreciation over the assets useful life, irrespective of the level of usage. Therefore, the units of activity method is the most appropriate method for depreciation calculation for the asset.