

Q7. (a) Option A:

$$\text{After 1 yr BV} = 668000 - \frac{12}{100} \times 668000 \\ = 587840$$

$$\text{After 2nd yr BV} = 587840 - \frac{12}{100} \times 668000 \\ = 507680$$

$$\text{After 3rd yr BV} = 507680 - \frac{12}{100} \times 668000 \\ = 427520$$

etc...

Option B:

$$\text{After 1 yr, BV} = 668000 - \frac{18}{100} \times 668000 \\ = 547760$$

$$\text{After 2 yrs, BV} = 547760 - \frac{18}{100} \times 547760 \\ = 449163.2$$

$$\text{After 3 yrs, BV} = 449163.2 - \frac{18}{100} \times 449163.2 \\ = 368313.824$$

etc...

Option C:

$$\text{Rate of dep} = \frac{668000 - 82000}{2000000} \\ = 0.293$$

$$\therefore \text{loss per year} = 0.293 \times 390000 \\ = 114270$$

$$\text{After 1st yr, BV} = 668000 - 114270 \\ = 553730$$

$$\text{2nd yr, BV} = 668000 - 2 \times 114270 \\ = 439460$$

$$\text{3rd yr, BV} = 668000 - 3 \times 114270 \\ = 325190$$

etc...

yr.	Option A	Option B	Option C
0	668000	668000	668000
1	587840	547760	553730
2	507680	449163	439460
3	427520	368314	325190
4	347360	302017	210920
5	267200	247654	96650
6	187040	203076	-17620

(b) Option A:

Each yr, equipment depreciates by

$$\frac{12}{100} \times 668000 = 80160$$

$$\therefore \text{After } t \text{ yrs, BV} = 668000 - 80160t$$

Option B:

$$\text{BV} = 668000 \left(1 - \frac{18}{100}\right)^t \\ = 668000 (0.82)^t$$

Option C:

Each yr, equipment depreciates by

\$114270

$$\therefore \text{After } t \text{ yrs, BV} = 668000 - 114270t$$

