**Homework Week 4**

**EGR 310**

1. (Chapter 11) A company has purchased a backhoe for $120,000. The backhoe has a 6 year life and salvage value of $30,000. Compute the depreciation schedule using straight line depreciation. **(15 pts)**:

Soln:

|  |  |  |
| --- | --- | --- |
| YRS | 6 |  |
| Purchase | 120,000 |  |
| Salvage | 30000 |  |
|  | **YR** | **SL** |
|  | **1** | $15,000 |
|  | **2** | $15,000 |
|  | **3** | $15,000 |
|  | **4** | $15,000 |
|  | **5** | $15,000 |
|  | **6** | $15,000 |
|  | **Total** | $90,000 |

120,000-30,000 = 90,000/6 = \_\_\_\_\_\_\_

1. (Chapter 11) An asset was purchased for $100,000. It has a 5 year life. The asset is expected to have a salvage value of $10,000 after the five years. Show the depreciation and remaining book value for this asset for each of the 5 years using Double Declining Balance depreciation. **(15 pts)**

Soln:

|  |  |  |
| --- | --- | --- |
| **YR** | **Dep** | **BV** |
| **0** |  |  |
| **1** | **$40,000** |  |
| **2** | **$24,000** | **0** |
| **3** | **$14,400** |  |
| **4** | **$8,640** |  |
| **5** | **$2,960** |  |

|  |  |  |
| --- | --- | --- |
| **YR** | **Dep** | **BV** |
| **0** |  |  |
| **1** | **$40,000** |  |
| **2** | **$24,000** |  |
| **3** | **$14,400** |  |
| **4** | **$8,640** |  |
| **5** | **$2,960** |  |

1. (Chapter 11) Use MACRS to compute the depreciation schedule for office furniture purchased for $80,000 (use the 7 yr depreciation schedule). Assume salvage value is $10,000. **(10 pts)**

Soln:

|  |  |  |
| --- | --- | --- |
| **Purchase** | **$80,000** |  |
| **YR** | **7 yr MACRS** | **Dep** |
| 1 | 14.29% |  |
| 2 | 24.49% |  |
| 3 | 17.49% |  |
| 4 | 12.49% |  |
| 5 | 8.93% | 4 |
| 6 | 8.92% |  |
| 7 | 8.93% |  |
| 8 | 4.46% |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Purchase** | **$80,000** |  |
| **YR** | **7 yr MACRS** | **Dep** |
| 1 | 14.29% |  |
| 2 | 24.49% |  |
| 3 | 17.49% |  |
| 4 | 12.49% |  |
| 5 | 8.93% |  |
| 6 | 8.92% |  |
| 7 | 8.93% |  |
| 8 | 4.46% |  |
|  |  |  |

1. (Chapter 11) What is the book value at the end of year 3 of an asset purchased for $50,000, depreciated over 5 years and a salvage value of $10,000 using: **(20 pts)**
   1. Straight Line Depreciation
   2. MACRS (use 5 year depreciation schedule)

Soln:

SL = (50000 – 10000)/5 = $\_\_\_\_\_\_\_\_

MACRS Table 11-3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| YRS | 5 |  |  |  |  |
| Purchase | $50000 |  |  |  |  |
| Salvage | $10000 |  |  |  |  |
|  |  |  |  |  |  |
| **YR** | **SL** | **SL BV** | **MACRS** | **M Dep** | **MACRS BV** |
| **1** | $8,000 | $42,000 | 20.00% | $10,000 | $40,000 |
| **2** | $8,000 | $34,000 | 32.00% | $16,000 | $24,000 |
| **3** | $8,000 |  | 19.20% | $9,600 |  |
| **4** | $8,000 | $18,000 | 11.52% | $5,760 | $8,640 |
| **5** | $8,000 | $10,000 | 11.52% | $5,760 | $2,880 |