(25) 1. An investor purchased 1000 shares of Omega common stock for $15,000. He held the stock for ten years. For the first four years he received annual end-of-year dividends of $1,200. For the next four years he received annual dividends of $1,500. He received $2,000 dividend for the last two years. At the end of the tenth year he sold his stock for $20,000. What rate of return did he receive on his investment? (Try 12%)

(25) 2. A firm is considering two alternatives:

|  |  |  |
| --- | --- | --- |
|  | A | B |
| Initial cost | $10,700 | $5,500 |
| Uniform annual benefits | $2,000 | $1,600 |
| Salvage value at the end of useful life | $600 | $200 |
| Useful life | 8 years | 4 years |

At the end of four years, another B may be purchased with the same cost, benefits, and so forth. If the MARR is 12%, which alternative should be selected based on the **internal rate of return approach?**

(25) 3. Consider a $52,000 piece of machinery, with a 5-year depreciable life and an estimated $4,000 salvage value at the end of its 5-year life. Compute the **depreciation schedule** and the **book value**s for the equipment by each of the following methods:

a. Straight-line

b Sum-of-years’-digits

c. Double-declining balance

d. MACRS-GDS depreciation (5-yr property)

e. MACRS-ADS depreciation (5-yr property)

(25) 4. A machine has an initial cost of $350,000, and was estimated to have a salvage value of $30,000 at the end of its 7 years useful life. The machine is expected to generate annual net savings of $95,000. A loan of $150,000 at 7% interest will help fund the purchase. The loan is to be repaid in seven equal annual installments including interest. The firm's marginal income tax rate is 39%. The equipment qualifies for MACRS 5-year property.

a. Calculate the interest on loan for each year.

b. Using MACRS-GDS depreciation (5-yr property), calculate the after-tax cash flows.