

**TOPIC**

Economics – Section VI – Question 11

**QUESTION**

A mechanical engineer bought a car for \$20,000. She expects it to have a \$3,000 resale value at the end of 10 years. Fixed costs are \$300 per year and running costs are \$0.20/mile. The engineer drives 12,000 miles per year. At a 6% interest rate, the average annual cost computed by the method of straight-line depreciation plus average interest most nearly is

- (A) \$3,000
- (B) \$5,141
- (C) \$7,163
- (D) \$20,000

**HINT**

$$\text{Straight-line depreciation} = \frac{P-S}{n}$$

$$\text{Average interest} = (P - S) \left( \frac{i}{2} \right) \left( \frac{n+1}{n} \right) + Si$$

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