Name: Id#

ISE 307, Term 173

ENGINEERING ECONOMIC ANALYSIS

Quiz# 1 Solution

Date: Sunday, July 1, 2018

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# **Q1.** If you borrow $25,000 at an interest rate of 6%, compounded annually, with the repayment schedule as shown. what is the amount A? (Note that there is a missing payment in year 5.)

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**(a) A = $4,129**

(b) A = $4,793

(c) A = $3,193

(d) A = $3,593

A { (P/A, 6%, 9) - (P/F, 6%, 5) } = 25,000

A { 6.8017- 0.7473 } = 25,000

A { 6.0544 } = 25,000

A = 25,000/6.0544 =$4,129.22

**Q2.** The maintenance expense on a machine is expected to be $5,000 during the first year and to increase $500 each year for the following ten years. What present sum of money should be set aside now to pay for the required maintenance expenses over the ten-year period? (Assume 8% compound interest per year.).

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