Name: Id#

ISE 307, Term 173

ENGINEERING ECONOMIC ANALYSIS

Quiz# 1 Solution

 Date: Sunday, July 1, 2018

#

# **Q1.** If you borrow $20,000 at an interest rate of 8%, compounded annually with the following repayment schedule, what is the required amount A?



**(a) A = $2,951**

(b) A = $3,967

(c) A = $3,101

(d) A = $2,324

20,000(F/P, 8%, 2) =A (P/A, 8%, 13)

20,000\*1.1664 =A\*7.9038

 =>A = 20,000\*1.1664/7.9038 = $2,951.49

**Q2.** What is the amount of 10 equal annual deposits that can provide five annual withdrawals, when a first withdrawal of $2,000 is made at the end of year 11 and subsequent withdrawals increase at the rate of 5% per year over the previous year's rate if the interest rate is 7% compounded annually?



= 651.61