1 – (15 points) An annuity with payments at the end of each quarter pays $200 for the first two years, $300 for the third year, and $400 for the last 3 years. Find the present value of these payments at a nominal rate of interest of 8% compounded quarterly.

2 – (15 points) Fouad has made semi-annual deposits of $500 for 5 years at the beginning of each 6 months into a saving fund paying interest at 6% compounded semi-annually. What semi-annual deposits should be made at the beginning of each 6 months for the next 2 years to bring the balance up to $10,000 at the end of the 7 years?

3 – (20 points) A couple deposited $300 every 3 months in a fund paying interest at 6% convertible quarterly. The first deposit was made on June 1, 2004; the last deposit on March 1, 2007. Find the value of the fund on:

 a) September 1, 2006

 b) March 1, 2009

4 – (15 points) A level perpetuity-immediate is to be shared by A, B, and C. During the first 2n years, A and B share each payment equally. All payments thereafter revert to C. The ratio of the present value of C’s share to that of A’s share is 2/3. Find (1+i)n

5 – (15 points) A dealer sells a television for $570. He will allow you to buy it for $240 down payment, with the balance to be paid in $30 monthly instalments for a year at the end of each month. If the interest is compounded monthly, what is the nominal rate of interest?

6 – (20 points) How much money is needed to establish a scholarship fund paying $1,500 (annually) starting at the end of the 7th year if the fund will earn a nominal rate of:

 a) interest of 8% convertible quarterly?

 b) discount of 8% convertible quarterly?