# Solution corporate finance chapter 4 assignment 

Business

## ASSIGN BUSTER

TUGAS CORPORATE FINANCE 38. Calculating Loan Payments. You need a 30years, fixed-rate mortgage to buy a new home for $\$ 250,000$. Your mortgage bank will lend you the money at a 6.8 percent APR for this 360-month loan. However, you can only afford monthly payments of $\$ 1,200$, so you offer to pay off any remaining loan balance at the end of the loan in the form of single balloon payment. How large will this balloon payment have to be for you to keep your monthly payments at \$1, 200? 54. Calculating Annuities. You have recently won the super jackpot in the Washington State Lottery. On reading the fine print, you discover that you have the following two options: a. You will receive 31 annual payments of $\$ 175,000$, with the first payment being delivered today. The income will be taxed at a rate of 28 percent. Taxed will be withheld when the checks are issued. b. You will receive $\$ 530$, 000 now, and you will not have to pay taxes on this amount. In addition, beginning one year from this annuity will be taxed at 28 percent.

Using a discount rate of 10 percent, which option should you select? 65 . Calculating Annuity Payments. Your friend is celebrating her 35th birthday today and wants to start saving for her anticipated retirement at age 65. She wants to be able to withdraw $\$ 110,000$ from her savings account on each birthday for 25 years following her retirement; the first withdrawal will be on her 66th birthday. Your friend intends to invest her money in the local credit union, which offers 9 percents interest per year.

She wants to make equal annual payments on each birthday into the account established at the credit union for her retirement fund. a. If she starts making these deposits on her 36th birthday and continues to make
deposit until she is 65 (the last deposit will be on her 65th birthday), what amount must she deposit annually to be able to make the desired withdrawals at retirement? b. Suppose your friend has just inherited a large sum of money. Rather than aking equal annual payments, she has decided to make one lump-sum payment on her 35th birthday to cover her retirement needs. What amount does she have to deposit? c. Suppose your friend's employer will contribute $\$ 1,500$ to the account every year as part of the company's profit-sharing plan. In addition, your friend expects a \$50, 000 distribution from a family trust fund on her 55th birthday, which she will also put into the retirement account. What amount must she deposit annually now to be able to make the desired withdrawals at the retirement?

