



FIN300 – Managerial Finance

Summer 2020

Homework – 15%

Section:

By

Student Name	ID

Instructions

The following assignment is an individual work. Please complete and submit a Turnitin document on Moodle before September 14, 7:00pm.

Only report answers in your final document. You are entitled to two attempts. In calculation problems, please provide a detailed answer.

Problem 1. Indicate whether the following statement is true or false (35 marks)

1. If money is invested for 20 years at 12% interest, compounded monthly, the money is really being invested for 240 month periods, during which 1% interest is received each period.
 - a. True
 - b. False
2. Rent is a good example of an ordinary annuity.
 - a. True
 - b. False
3. The more frequent the compounding periods in a year, the lower the future value.
 - a. True
 - b. False
4. Foreign bonds are bonds exclusively issued by foreign governments.
 - a. True
 - b. False
5. Bonds work so well because they enable lenders to raise more funds.
 - a. True
 - b. False
6. The present value is negatively related to the interest rate.
 - a. True
 - b. False
7. A coupon payment is defined as a percentage of the face value.
 - a. True
 - b. False
8. As the compound interest rate increases, the present value of future cash flows increases.
 - a. True
 - b. False
9. Corporate bonds bear a higher default risk compared to government bonds.
 - a. True
 - b. False
10. The higher the yield to maturity is, the higher the price of the bond today.
 - a. True
 - b. False

Problem 2. Indicate the answer choice that best completes the statement or answers the question (50 marks). When the question requires a calculation, provide the calculation details.

1. In order to calculate the value of money in time, we use:
 - a. Simple interest.
 - b. Real interest.
 - c. Nominal interest.
 - d. Compound interest
2. Which one of the following bonds has the lowest risk of default?
 - a. Corporate bond.
 - b. US Treasury bond.
 - c. Venezuelan Treasury bond.
 - d. Foreign corporate bond.
3. You invest £200 in a mutual fund today that pays 8 percent interest per year. How long will it take to double your money?
 - a. 6.5 years.
 - b. 6 years.
 - c. 7.5 years.
 - d. 8 years
 - e. 9 years.
4. How much should you invest today in order to be able to withdraw 10,000 KD 5 years from today if the interest rate is 7% per year compounded semi-annually?
 - a. 7089.19 KD.
 - b. 7129.86 KD.
 - c. 5083.89 KD.
 - d. 8419.73 KD.
5. A corporate bond issued in the UK has a coupon rate of 8% and face value of £100. The bond will mature in five years. The coupon payments are made annually. Calculate the price of the bond if the yield to maturity is 8.5%.
 - a. £98.03
 - b. £97.93.
 - c. £108.03
 - d. £88.03
6. If you save \$1000 per month for the next 10 years. How much will you be able to withdraw at the end of 10th year? The interest rate is 0.5% per month.
 - a. \$17,703.
 - b. \$163,979.
 - c. \$9,730.
 - d. \$90,073.
7. Which of the following is not a type of bond?
 - a. treasury bond.
 - b. corporate bonds.
 - c. College bonds.
 - d. foreign bonds.

8. If I invest 8,000 KD today at the rate of 10% per year, what is the amount that I will be able to withdraw yearly for the next 5 years?
- a. 40,000 KD.
 - b. 12884 KD.
 - c. 1310.38 KD.
 - d. 2110.38 KD.
9. Which of the following risks that an ordinary bond is exposed to?
- a. default risk.
 - b. inflation risk.
 - c. interest rate risk.
 - d. reinvestment rate risk.
10. A corporate bond issued in the UK has a coupon rate of 10% and face value of £100. The bond will mature in five years. The coupon payments are made annually. Calculate the price of the bond if the yield to maturity is 10%.
- a. £116.85.
 - b. £100.
 - c. £117.81.
 - d. £96.72.

Problem 3 (15%)

Go to the St. Louis Federal Reserve FRED database, and find data on the interest rate on a four-year auto loan (TERMCBAUTO48NS). Assume that you borrow \$20,000 to purchase a new automobile and that you finance it with a four-year loan at the most recent interest rate given in the database. If you make one payment per year for four years, what will the yearly payment be? What is the total amount that will be paid out on the \$20,000 loan?

<https://fred.stlouisfed.org/> Search for **TERMCBAUTO48NS**