

## Test Exam 2. – Finance

*(3 decimals punctuality is required for the calculations!)*

1. The maturity of a T-bill is 1st December 2019. Would you buy this T-bill on 02/12/2018, if your required rate of return is 6% and the price on this day is 105%? What is the IRR of this bill?
2. The maturity of a T-bill is 06/06/2019. Its price is 97% today (12<sup>th</sup> January 2019), your required rate of return is 4%? What is the IRR of this bill?
3. You are considering to buy a T-bond, whose maturity is 8 years. The interest rate of the bond is 5.5%. The required rate of this asset is 6%. What is the maximum amount which you should sacrifice to buy this bond? If the price of the bond is 107% of the nominal value, should you buy or not?
4. A Google share costs \$310. The next dividend payment in 7/19 will be \$37. The dividend growth rate is estimated to 3.5%. The required rate of return is 10%. What is the net price? What is the gross price? Shall you buy the share today (02/12/2018)? How much will be the dividend in 3 years? How much dividend will pay the company within the following 5 years per share?
5. A bank wants to discount a bill of exchange on 23th of December 2018. The maturity of the security is on 28/02/2019. Its nominal value is €15,000. The discount rate used by the bank is 15%. The lending rate is 16%. What will be the discount price of the bill of exchange? What is cheaper for the bank's client - to discount the bill or to raise a loan? How much is the calculated discount rate? How much is the calculated lending rate? What is the threshold period at the given lending and discounting rate?
6. 2023/K bond promises to pay 5.5% interest per annum. The next interest payment occurs in 1/1/2019. The required rate of return is 7.5%. What is the maximum price of this bond? Shall you buy or sell this bond, if the price is 107.5%? (The settlement date is 01/12/2018)
7. The next day the Daimler will pay 75€ dividend. You expect the same annual dividend for a very long time. The expected return is 8%. What is the maximum price of this share? What will be the maximum price 155 days before and after the company pays the dividend?