

CS401: Computational Finance

Lab 3

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Q1. Consider a Compound Interest at the interest rate 10% compounded semi-annually using the Actual/Actual day convention. Compound Factor describes the how much an investment of $1 will be worth when compounded at this interest after t years. Discount Factor returns the reciprocal of the Compound Factor, which is used to calculate present value of cash flows. Calculate both factors for 5 years.

Ans:

April 17th, 2018

10.0%

Actual/Actual (ISDA) Semiannual compounding

1.628894

0.613913

Q2. European Option Pricing: Consider a European stock option with spot price $100, strike price $80, volatility of 25% and maturing on July 31, 2020. Value this option on April 10, 2018 using the Binomial Tree Model as well as Black Scholes Model.

