UNIVERSITY OF TEXAS AT AUSTIN

Quiz 6

Transaction costs. Short sales.

Please, re-read the following lecture note prior to attempting these problems:

`https://www.ma.utexas.edu/users/mcudina/m339d-lecture-two-transaction-costs.pdf`

Note: After this assignment, we will – as a rule – assume that there are no transaction costs or bid-ask spread in our problems!

Provide your **<u>final answer</u>** only for the following problems.

Problem 6.1. (5 pts) Assume that an investor opens a 100 share short position in Jiffy, Inc. common stock at the bid-ask price of $32.00-$32.50. When the investor closes his position the bid-ask prices are $32.50-$33.00. If there is a commission rate of 0.5%, calculate the investor's profit on the short investment (assume $r = 0$)?

(a) About $32.50 gain

(b) About $16.25 loss

(c) About $132.50 loss

(d) About $100 gain

(e) None of the above

Problem 6.2. (5 pts) Assume that you (an investor) open a $300-$share short position in XYZ common stock at $30.19 with commission of 0.5%. When you close your position the stock price is $29.87 and you have to pay a commission rate of 0.5%. Calculate your profit on this short investment (assume $r = 0$)?

(a) About $12.50 gain

(b) About $5.91 gain

(c) About $5.91 loss

(d) About $12.50 loss

(e) None of the above

Please, provide the **complete** solution to the following problem. Final answer only, even if correct, will earn zero points.

Problem 6.3. (5 points) Bertram shorts (i.e., short sells) 100 shares of a non-dividend-paying stock at the initial stock price of $50 per share. He invests the proceeds a the continuously compounded risk-free interest rateof 0.04 in a savings accout. He does not make any subsequent withdrawals from or deposits to this account until the short sale is closed. When Bertram closes the short sale, six months later, the stock price is $55. Does he have enough money in the savings account to be able to close the short sale without using additional funds?