

## EC 247 Financial Instruments and Capital Markets

### Class Exercise 9

These questions are chosen from chapters 20, 21 and 22 of the Frederic S. Mishkin and Stanley G. Eakins, *Financial Markets and Institutions*, 7<sup>th</sup> Edition, Pearson Prentice Hall, 2012.

#### Question 1

On January 1st, a mutual fund has the following assets and prices at 4:00 p.m.:

Stock	Shares owned	Price
1	1,000	\$ 1.97
2	5,000	\$48.26
3	1,000	\$26.44
4	10,000	\$67.49
5	3,000	\$ 2.59

Calculate the net asset value (NAV) for the fund. Assume that 8,000 shares are outstanding for the fund.

#### Question 2

Assume now that an investor sends to the fund a check for \$50,000. If there is no front-end load, calculate the new number of shares and price/share. Assume the manager purchases 1,800 shares of stock 3, and the rest is held as cash.

#### Question 3

Assume now that on January 2nd the prices at 4:00 pm are:

Stock	Shares owned	Price
1	1,000	\$ 2.03
2	5,000	\$51.37
3	2,800	\$29.08
4	10,000	\$67.19
5	3,000	\$ 4.42
cash	n.a.	\$ 2408

Calculate the net asset value (NAV) for the fund

#### Question 4

An employee contributes \$200 a year (at the end of the year) to her pension plan. What would be the total contributions and value of the account after 5 years? Assume that the plan earns 15% per year over the period

### Question 5

The limit order book for a security is:

<b>Unfilled Limit Orders</b>			
<b>Buy</b>	<b>Orders</b>	<b>Sell</b>	<b>Orders</b>
25.12	100	25.36	300
25.20	500	25.38	200
25.23	200	25.41	200

The specialist receives the following, in order:

- Market order to sell 300 shares
- Limit order to buy 100 shares at 25.38
- Limit order to buy 500 shares at 25.30

How, if at all, are these orders filled? What does the limit order book look like after these orders?