Problem Set #1 Solutions

1. Which of the following is *not* a money market instrument?

A. Treasury bill
B. Commercial paper
C. Preferred stock
D. Bankers' acceptance

2. An investor purchases one municipal bond and one corporate bond that pay rates of return of 5% and 6.4%, respectively. If the investor is in the 15% tax bracket, his after-tax rates of return on the municipal and corporate bonds would be, respectively, _____.

A. 5% and 6.4%
B. 5% and 5.44%
C. 4.25% and 6.4%
D. 5.75% and 5.44%

After-tax return on municipal bond = .05
After-tax return on corporate bond = .064(1 - .15) = .0544 = 5.44%

3. June call and put options on King Books Inc. are available with exercise prices of $30, $35, and $40. Among the different exercise prices, the call option with the _____ exercise price and the put option with the _____ exercise price will have the greatest value.

A. $40; $30
B. $30; $40
C. $35; $35
D. $40; $40

4. A dollar-denominated deposit at a London bank is called _____.

A. eurodollars
B. LIBOR
C. fed funds
D. bankers' acceptance

5. Which of the following is not a true statement regarding municipal bonds?

A. A municipal bond is a debt obligation issued by state or local governments.
B. A municipal bond is a debt obligation issued by the federal government.
C. The interest income from a municipal bond is exempt from federal income taxation.
D. The interest income from a municipal bond is exempt from state and local taxation in the issuing state.

6. An investor buys a T-bill at a bank discount quote of 4.80 with 150 days to maturity. The investor's actual annual rate of return on this investment is _____. Assume T-bills have a face value of $10,000.

A. 4.8%
B. 4.97%
C. 5.47%
D. 5.74%

Step 1: Find the price that the investor paid

$$\$9800 = \$10{,}000 \times \left[1 - \frac{(0.0480 \times 150)}{360}\right]$$

Step 2: calculate the return to the investor

$$\left(\frac{\$10{,}000}{9800} - 1\right) \times \frac{365}{150} = 4.97\%$$

7. If you thought prices of stock would be rising over the next few months, you might want to ________________ on the stock.

A. purchase a call option
B. purchase a put option
C. sell a futures contract
D. place a short-sale order

8. What is the tax exempt equivalent yield on a 9% bond yield given a marginal tax rate of 28%?

A. 6.48%
B. 7.25%
C. 8.02%
D. 9.00%

$$\text{after tax yield} = .09(1 - .28) = .0648$$

9. A tax free municipal bond provides a yield of 3.2%. What is the equivalent taxable yield on the bond given a 35% tax bracket?

A. 3.20%
B. 3.68%
C. 4.92%
D. 5.00%

$$\text{Yield} = \frac{.032}{1 - .35} = 0.0492$$