ECON 313- HW 1
Due: Monday, SEP 20

Short Answer Questions

1) An investor believes that the U.S. dollar will rise in value relative to the Japanese yen. The same investor is considering two investments with identical risk and return characteristics. One stock is trading in yen in Japan and the other stock is a stock trading in dollars in the United States. Should the investor purchase the Japanese stock? Briefly explain.

Numerical Question.

2) Stefani German, a 40-year-old woman, plans to retire at age 65, and she wants to accumulate $500,000 over the next 25 years to supplement the retirement programs provided by the federal government and her employer. She expects to earn an average annual return of about 4% by investing in a low-risk portfolio containing about 20% short-term securities, 30% common stock, and 50% bonds.
Stefani currently has $60,019 that at an annual rate of return of 4% will grow to about $160,000 by her 65th birthday. Stefani consults a financial advisor to determine how much money she should save each year to meet her retirement savings objective. The advisor tells Stefani that if she saves about $24.01 each year, she will accumulate $1,000 by age 65. Saving 5 times that amount each year, $120.05 , allows Stefani to accumulate roughly $5,000 by age 65.

   a. How much additional money does Stefani need to accumulate over time to reach her goal of 500,000$?
   b. How much must Stefani save to accumulate the sum calculated in part **a** over the next 25 years?

3) Mike and Julie Bedard are a working couple. They will file a joint income tax return. This year they have the following taxable income:
   1. $126,000 from salary and wages (ordinary income).
   2. $4,000 in interest income.
   3. $1,000 in dividend income.
   4. $3,000 in profit from sale of a stock they purchased two years ago.
   5. $4,000 in profit from a stock they purchased this year and sold this year.

   Use the federal income tax rates given in the following Table for 2021 to work this problem.

Tax Rates and Income Brackets for Joint Returns (2021)

Tax Rates	Taxable Income Joint Returns
10%	$0 to $19,900
12%	$19,901 to $81,050
22%	$81,051 to $172,750
24%	$172,751 to $329,850
32%	$329,851 to $418,850
35%	$418,851 to $628,300
37%	Over $628,300

a. How much will Mike and Julie pay in federal income taxes on 2 above?
b. How much will Mike and Julie pay in federal income taxes on 3 above? (Note: Remember that dividend income is taxed differently than ordinary income. Also, you can assume that the tax rates are the same as 2019)
c. How much will Mike and Julie pay in federal income taxes on 4 above?
d. How much will Mike and Julie pay in federal income taxes on 5 above?

4) An investor recently sold some stock in a European company that was worth 22,000 euros. The US$/euro exchange rate is currently 1.352 , meaning that 1 euro buys 1.352 dollars. How many U.S. dollars will the investor receive?

For the next two questions, you need to submit *excel commands* used to find prices along with your answers.

5) Find the Tesla stock **highest** price on June 15, 2021. For each of the following situations (ignoring brokerage commissions), calculate the gain or loss that Olivia Crowe realizes if she makes a 100-share transaction.
   a. She sells short and repurchases the borrowed shares at the lowest price on June 25.
   b. She takes a long position and sells the stock at the closing price on June 28.

6) Assume that an investor buys 50 shares of the Coinbase stock on July 15 at the lowest price, putting up a 60% margin.
   a. What is the value of the position?
   b. How much equity capital must the investor provide to make this margin transaction?

7) Assume that an investor buys 100 shares of stock at $48 per share, putting up a 56% margin. If the stock rises to $62 per share, what is the investor's new margin and new margin position?

8) An investor buys 300 shares of stock selling at $57 per share using a margin of 71%. The stock pays annual dividends of 1 per share. A margin loan can be obtained at an annual interest cost of 3.4%. Determine what return on invested capital the investor will realize if the price of the stock increases to $88 within six months. What is the annualized rate of return on this transaction?

Textbook Questions

Case problem 1.1 Joshua Read and Emily Todd, senior accounting majors at a large Midwestern university, have been good friends since high school. Each has already found a job that will begin after graduation. Joshua has accepted a position as an internal auditor in a medium-size manufacturing firm. Emily will be working for one of the major public accounting firms. Each is looking forward to the challenge of a new career and to the prospect of achieving success both professionally and financially.
Joshua and Emily are preparing to register for their final semester. Each has one free elective to select. Joshua is considering taking a golf course offered by the physical education department, which he says will help him socialize in his business career. Emily is planning to take a basic investments course and has been trying to convince Joshua to take investments instead of golf. Joshua believes he doesn't need to take investments because he already knows what common stock is. He believes that whenever he has accumulated excess funds, he can invest in the stock of a company that is doing well. Emily argues that there is much more to it than simply choosing common stock. She thinks that exposure to the field of investments would be more beneficial than learning to play golf.
Explain to Joshua the structure of the investment process and the economic importance of investing.

a. List and discuss the other types of investments with which Joshua is apparently unfamiliar.
b. Assuming that Joshua already gets plenty of exercise, what arguments would you give to convince him to take investments rather than golf?

P2.3 A Brazilian company called Netshoes completed its IPO on April 12, 2017, and listed on the NYSE. Netshoes sold 8,250,000 shares of stock to primary market investors at an IPO offer price of $18. Secondary market investors, however, were paying only $16.10 per share for Netshoes's stock.

a. Calculate the gross proceeds for Netshoes's IPO.
b. Calculate the underpricing for Netshoes's IPO.
c. Explain the IPO underpricing for Netshoes.
d. How much money was left on the table in Netshoes's IPO

P2.5 You would like to purchase one Class A share of Berkshire Hathaway through your Scottrade brokerage account. Scottrade charges a $7 commission for online trades. You log into your account, check the real-time quotes for Berkshire Hathaway (you see a bid price of $262,850 and an ask price of $263,770), and submit your order.

a. What is the current bid/ask spread for Berkshire Hathaway Class A shares?
b. If Scottrade routes your buy order to the NYSE, where Berkshire Hathaway is listed, what's the potential minimum your total transaction costs will be?
c. If, instead, Scottrade routes your buy order to the Nasdaq, where Berkshire Hathaway is not listed, what's the potential maximum your total transaction costs will be?
d. Regardless of how your trade is executed, based on the bid/ask spread, what is the market value of your trade?

P2.27 Sharnel Bitker expected the price of PharmaScripts shares to drop in the near future in response to the expected failure of its new drug to pass FDA tests. As a result, she sold short 1,000 shares of PharmaScripts at $9.75 per share. How much would Sharnel earn or lose on this transaction if she repurchased the 1,000 shares eight months later at each of the following prices per share?

a. $12.5
b. $9

Case Problem 2.1 Darren Simmons, a financial analyst, considers himself a savvy investor. He has increased his investment portfolio considerably over the past five years. Although he has been fairly conservative with his investments, he now feels more confident in his investment knowledge and would like to branch out into some new areas that could bring higher returns. He has between $20,000 and $25,000 to invest. Attracted to technology stocks, Darren is interested in purchasing a tech IPO stock and identified NewestHighTech.com, a company that makes sophisticated computer chips for wireless Internet connections, as a likely prospect. The one-year-old company had received some favorable press when it got early-stage financing and again when its chip was accepted by a major cell phone manufacturer. Darren also is considering an investment in 400 shares of Casinos International common stock, currently selling for $54 per share. After a discussion with a friend who is an economist with a major commercial bank, Darren believes that the long-running bull market is due to cool off and that economic activity will slow down. With the aid of his stockbroker, Darren researches Casinos International's current financial situation and finds that the future success of the company may hinge on the outcome of pending court proceedings on the firm's application to open a new floating casino on a nearby river. If the permit is granted, it seems likely that the firm's stock will experience a rapid increase in value, regardless of economic conditions. On the other hand, if the company fails to get the permit, the falling stock price will make it a good candidate for a short sale. Darren feels that the following alternatives are available to him:

Alternative 1: Invest $20,000 in NewestHighTech.com, when it goes public.
Alternative 2: Buy Casinos International now at $54 per share and follow the company closely.
Alternative 3: Sell Casinos short at $54 in anticipation that the company's fortunes will change for the worse.

Alternative 4: Wait to see what happens with the casino permit and then decide whether to buy or short sell the Casinos International stock.

Evaluate each of these alternatives. On the basis of the limited information presented, recommend the one you feel is best.