

### Question 1

2 / 2 pts

Expected return - hedge fund: What is the average annual (historic) return on the Hedge Fund? Enter your answer as a percent with one digit behind the decimal (e.g. 10.0% should be expressed as 10.0).

Correct

### Question 2

2 / 2 pts

Expected return - stock market: What is the average annual (historic) return on the Stock Market? Enter your answer as a percent with one digit behind the decimal (e.g. 10.0% should be expressed as 10.0).

Correct

### Question 3

2 / 2 pts

Expected return - risk-free: What is the average annual (historic) return on the Risk-free asset? Enter your answer as a percent with one digit behind the decimal (e.g. 10.0% should be expressed as 10.0).

Correct

#### **Question 4**

**2 / 2 pts**

Risk - hedge fund: What is the annualized standard deviation of the Hedge Fund? Enter your answer as a percent with one digit behind the decimal (e.g. 10.0% should be expressed as 10.0).

Correct

#### **Question 5**

**2 / 2 pts**

Risk - stock market: What is the annualized standard deviation of the Stock Market? Enter your answer as a percent with one digit behind the decimal (e.g. 10.0% should be expressed as 10.0).

Correct

#### **Question 6**

**2 / 2 pts**

Risk - risk-free: What is the annualized standard deviation of the Risk-free asset? Enter your answer as a percent with one digit behind the decimal (e.g. 10.0% should be expressed as 10.0).

Correct

## Question 7

2 / 2 pts

Asset allocation: Given that investors like expected return and dislike risk, if standard deviation of return was the correct measure of risk, which of the three assets would you expect investors to choose (if they can choose only one)?

Hedge Fund

Stock Market

Risk-Free Asset

Correct

## Question 8

3 / 3 pts

Capital asset pricing model: . What is the of the hedge fund? Enter your answer with four digits behind the decimal (e.g. the market has a of 1.0000).

Correct

### Question 9

3 / 3 pts

Capital asset pricing model: : The stock market was up 2.27% in February of Year 15. Given your CAPM regression, how did the hedge fund perform?

Better than expected

As expected

Worse than expected

We can't tell given the data

Correct

### Question 10

3 / 3 pts

Capital asset pricing model: . What is the annualized ? Enter your answer as a percent with one digit behind the decimal (i.e. 1% is entered as 1.0).

Correct

## Question 11

2 / 2 pts

Asset allocation revisited: Given your CAPM estimates, what fraction of your financial assets would you allocate to the hedge fund, if you were able to invest in it. Remember, it is an exclusive fund and is not open to all investors. Enter your answer as a percent with one digit behind the decimal (i.e. 15% is entered as 15.0)

Correct

## Question 1

3 / 3 pts

Portfolio 1 break even: If you purchase a call option with a strike price of 45 for 7.75 and sell a call option with a strike price of 50 for 3.50 at what stock price do you break even? Assume the options are European and they each have a maturity of one year. Enter your answer in dollars and cents (i.e. 10.00).

Correct

## Question 2

2 / 2 pts

Portfolio 1 market view: For portfolio 1 to be a good investment, the investor must believe which of the following?

The expected future stock price is higher than the market believes

The expected future stock price is lower than the market believes

The volatility of stock returns is higher than the market believes

The volatility of stock returns is lower than the market believes

None of the above

Correct

## Question 3

2 / 2 pts

Portfolio 2 break even - low end: Purchase a call option with a strike price of 80 for 8.4 and a call option with a strike price of 100 for 1.9 and sell two call options with a strike price of 90 for 4.2 each. This portfolio makes money for a range of stock prices. What is the bottom end of the stock price range over which this portfolio makes money? This is the stock price below which you lose money and above which you make money. If there

is no lower range, enter 0 for the lower range. Enter your answer with one digit behind the decimal (e.g. 0.0).

Correct

#### Question 4

2 / 2 pts

Portfolio 2 break even - high end: What is the top end of the stock price range over which this portfolio makes money? This is the stock price below which you make money and above which you lose money. If there is no upper range, enter 200 for the upper range. Enter your answer with one digit behind the decimal (e.g. 200.0).

Correct

#### Question 5

2 / 2 pts

Portfolio 2 market view: For portfolio 2 to be a good investment, the investor must believe which of the following?

The expected future stock price is higher than the market believes

The expected future stock price is lower than the market believes

The volatility of stock returns is higher than the market believes

The volatility of stock returns is lower than the market believes

None of the above

Correct

## Question 6

3 / 3 pts

Portfolio 2 returns: If you purchase portfolio 2 and the stock price at the end of the year is 90, what is your rate of return? Enter your answer as a percent with one digit behind the decimal (i.e. 1% is entered as 1.0).

Correct

## Question 7

3 / 3 pts

Portfolio 2 returns: If you purchase portfolio 2 and the stock price at the end of the year is 103.40, what is your rate of return? Enter your answer as a percent with one digit behind the decimal (i.e. 1% is entered as 1.0).

Correct



### Question 8

2 / 2 pts

Option pricing: low stock price (\$): If the stock price rises from 80 to 81, how much does the option price change in dollars terms? Assume that the strike price of the option is 100, the option has one year to maturity, the risk-free rate is 8 percent, the dividend yield is 4 percent, and the annual volatility is 30 percent. Enter your dollar answer with three digits behind the decimal (i.e. 10.000)

Correct

### Question 9

2 / 2 pts

Option pricing: low stock price (%): When the stock price rises from 80 to 81 (see prior question), how much does the option price change in percent? Enter your percent answer with one digit behind the decimal (i.e. 10.0% ).

Correct

### Question 10

2 / 2 pts

Option pricing: high stock price (\$): If the stock price rises from 120 to 121, how much does the option price change in dollars terms? Continue to assume that the strike price of the option is 100, the option has one year to maturity, the risk-free rate is 8 percent, the dividend yield is 4 percent, and the annual volatility is 30 percent. Enter your dollar answer with three digits behind the decimal (i.e. 10.000).

Correct

## Question 11

2 / 2 pts

Option pricing: high stock price (%): If the stock price rises from 120 to 121, (see prior question), how much does the option price change in percent? Enter your percent answer with one digit behind the decimal (i.e. 10.0% ).

Correct

Quiz Score

## Question 1

2 / 2 pts

NPV of asset acquisition: If you purchase the project for 59,128, what is the NPV of the investment? Enter your answer rounded to the nearest dollar (i.e. 10).

Correct

## Question 2

2 / 2 pts

Asset IRR: What is the IRR of the asset investment? Enter your answer as a percent with one digit behind the decimal (i.e. enter 10.0% as 10.0).

Correct

## Question 3

3 / 3 pts

Expected asset return: If you purchase the asset today, collect the first year's cash flow and then sell the asset for the present value of the expected future cash flows, what is your expected rate of return? Enter your answer as a percent with one digit behind the decimal (i.e. enter 10.0% as 10.0).

Correct

## Question 4

3 / 3 pts

Required return on equity: Your plan is to purchase Swing and Pool in a levered buyout. You will borrow \$25,000 at five percent (assume this is the expected return on the debt).

The loan will require five equal payments at the end of years one through five. What is the required return on equity the first year according to CAPM? Enter your answer as a percent with one digit behind the decimal (i.e. enter 10.0% as 10.0).

Correct

### Question 5

3 / 3 pts

Cash flow to equity: What is the cash flow to equity at the end of year 1? Enter your answer rounded to the nearest dollar (i.e. 10).

Correct

### Question 6

3 / 3 pts

Equity IRR: What is the internal rate of return on the equity investment? Enter your answer as a percent with one digit behind the decimal (i.e. enter 10.0% as 10.0).

Correct

### Question 7

**3 / 3 pts**

NPV of the equity investment. What is the NPV of the equity investment? If you find it useful, you can compare the expected return on equity to the require return on equity. Enter your answer rounded to the nearest dollar (i.e. 10).

Correct

### **Question 8**

**3 / 3 pts**

Equity IRR with higher leverage: If you borrow \$40,000, instead of \$25,000 to finance your purchase of Swing and Pool, what is the equity IRR? Enter your answer as a percent with one digit behind the decimal (i.e. enter 10.0% as 10.0).

Correct

### **Question 9**

**3 / 3 pts**

NPV of the equity investment with higher leverage: How does the increase in leverage (from \$25,000 to \$40,000) change the NPV of the equity investment?

The higher leverage increases the NPV of the equity investment

The higher leverage decreases the NPV of the equity investment

The higher leverage does not change the NPV of the equity investment

We can not tell from the given data. The NPV could increase or decrease.

Correct

### Question 1

4 / 4 pts

Bond prices. What is the price of the four year zero-coupon bond? Report your answer with two digits behind the decimal (i.e. 1000.00).

### Question 2

5 / 5 pts

Forward rates. What is the three year forward rate? Report your answer as a percent with two digits behind the decimal (i.e. enter 10.00% as 10.00).

### Question 3

**4 / 4 pts**

Pricing coupon bonds. What must the coupon rate be on a five year bond for the bond to sell at par? Enter your answer as a percent with two digits behind the decimal (i.e. enter 10.00% as 10.00).

#### **Question 4**

**4 / 4 pts**

Swap cash flows. What is the expected cash flow at the end of the fourth year for the party that pays floating and receives fixed? Negative cash flows mean payments made, positive numbers mean payments received. Enter your answer in millions with one digit behind the decimal (i.e. enter \$400.0M as 400.0).

#### **Question 5**

**4 / 4 pts**

Price of the swap. What must the fixed rate (swap rate) be for the swap to have a zero value? Enter your answer as a percent with two digits behind the decimal (i.e. 5.00 for 5%).

#### **Question 6**

**4 / 4 pts**

Semi-log regressions. What is the estimated coefficient on year? Enter your answer with 4 digits behind the decimal place (i.e. 0.0530).