Review Test Submission: Chapter 1 Self Check Quiz

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Course	EN.555.644.81.FA19 Introduction to Financial Derivatives
Test	Chapter 1 Self Check Quiz
Started	9/2/19 9:00 PM
Submitted	9/2/19 9:02 PM
Status	Completed
Attempt Score	0 out of 0 points
Time Elapsed	1 minute
Instructions	Please answer the following questions.
Results Displayed	All Answers, Submitted Answers, Correct Answers, Feedback, Incorrectly Answered Questions

Question 1

A one-year forward contract is an agreement where

Selected Answer:
B.
One side has the obligation to buy an asset for a certain price in one year's time.

Answers:
A.
One side has the right to buy an asset for a certain price in one year's time.

B.
One side has the obligation to buy an asset for a certain price in one year's time.

C.
One side has the obligation to buy an asset for a certain price at some time during the
next year.

D.
One side has the obligation to buy an asset for the market price in one year's time.

Response Feedback: Correct. A one-year forward contract is an obligation to buy or sell in one year's time for a predetermined price. By contrast, an option is the right to buy or sell.

Question 2

A one-year call option on a stock with a strike price of $30 costs $3; a one-year put option on the stock with a strike price of $30 costs $4. Suppose that a trader buys two call options and one put option. The breakeven stock price above which the trader makes a profit is

Selected Answer: A. $35

Answers:

A. $35

B. $40

C. $30

D. $36

Response Feedback: Correct. When the stock price is $35, the two call options provide a payoff of 2×(35−30) or $10. The put option provides no payoff. The total cost of the options is 2×3+ 4 or $10. The stock price in A, $35, is therefore the breakeven stock price above which the position is profitable because it is the price for which the cost of the options equals the payoff.

Question 3

Which of the following best describes the term “spot price”?

Selected Answer: A. The price for immediate delivery

Answers:

A. The price for immediate delivery

B. The price for delivery at a future time

C. The price of an asset that has been damaged

D. The price of renting an asset

Response Feedback: Correct. The spot price is the price for immediate delivery. The futures or forward price is the price for delivery in the future.

Question 4

Which of the following is true about a long forward contract?

Selected Answer: B. The contract becomes more valuable as the price of the asset rises

Answers:

A. The contract becomes more valuable as the price of the asset declines

B. The contract becomes more valuable as the price of the asset rises

C.

The contract is worth zero if the price of the asset declines after the contract has been entered into

D.
The contract is worth zero if the price of the asset rises after the contract has been entered into

Response Feedback: Correct. A long forward contract is an agreement to buy the asset at a predetermined price. The contract becomes more attractive as the market price of the asset rises. The contract is only worth zero when the predetermined price in the forward contract equals the current forward price (as it usually does at the beginning of the contract).

Question 5

An investor sells a futures contract an asset when the futures price is $1,500. Each contract is on 100 units of the asset. The contract is closed out when the futures price is $1,540. Which of the following is true?

Selected Answer: B. The investor has made a loss of $4,000

Answers:
A. The investor has made a gain of $4,000
B. The investor has made a loss of $4,000
C. The investor has made a gain of $2,000
D. The investor has made a loss of $2,000

Response Feedback: Correct. An investor who buys (has a long position) has a gain when a futures price increases. An investor who sells (has a short position) has a loss when a futures price increases.

Question 6

The price of a stock on July 1 is $57. A trader buys 100 call options on the stock with a strike price of $60 when the option price is $2. The options are exercised when the stock price is $65. The trader's net profit is

Selected Answer: C. $300

Answers:
A. $700
B. $500
C. $300
D. $600

Response Feedback: Correct. The payoff from the options is 100×(65-60) or $500. The cost of the options is 2×100 or $200. The net profit is therefore 500−200 or $300.

Question 7

The price of a stock on February 1 is $124. A trader sells 200 put options on the stock with a strike price of $120 when the option price is $5. The options are exercised when the stock priceis $110. The trader's net profit or loss is

Selected Answer: D. Loss of $1,000

Answers:

A. Gain of $1,000

B. Loss of $2,000

C. Loss of $2,800

D. Loss of $1,000

Response Feedback: Correct. The payoff that must be made on the options is 200×(120−110) or $2000. The amount received for the options is 5×200 or $1000. The net loss is therefore 2000−1000 or $1000.

Question 8

A speculator can choose between buying 100 shares of a stock for $40 per share and buying 1000 European call options on the stock with a strike price of $45 for $4 per option. For second alternative to give a better outcome at the option maturity, the stock price must be above

Selected Answer: D. $50

Answers:

A. $45

B. $46

C. $55

D. $50

Response Feedback: Correct. When the stock price is $50 the first alternative leads to a position in the stock worth 100×50 or $5000. The second alternative leads to a payoff from the options of 1000×(50−45) or $5000. Both alternatives cost $4000. It follows that the alternatives are equally profitable when the stock price is
$50. For stock prices above $50 the option alternative is more profitable.

Question 9

A company knows it will have to pay a certain amount of a foreign currency to one of its suppliers in the future. Which of the following is true?

Selected Answer: A. A forward contract can be used to lock in the exchange rate

Answers:

A. A forward contract can be used to lock in the exchange rate

B. A forward contract will always give a better outcome than an option

C. An option will always give a better outcome than a forward contract

D. An option can be used to lock in the exchange rate

Response Feedback: Correct. A forward contract ensures that the effective exchange rate will equal the current forward exchange rate. An option provides insurance that the exchange rate will not be worse than a certain level, but requires an upfront premium. Options sometimes give a better outcome and sometimes give a worse outcome than forwards.

Question 10

A trader has a portfolio worth $5 million that mirrors the performance of a stock index. The stock index is currently 1,250. Futures contracts trade on the index with one contract being on 250 times the index. To remove market risk from the portfolio the trader should

Selected Answer: B. Sell 16 contracts

Answers:

A. Buy 16 contracts

B. Sell 16 contracts

C. Buy 20 contracts

D. Sell 20 contracts

Response Feedback: Correct. One futures contract protects a portfolio worth 1250×250. The number of contract required is therefore 5,000,000/(1250×250)=16. To remove market risk we need to gain on the contracts when the market declines. A short futures position is therefore required.

Tuesday, October 20, 2020 9:39:36 PM EDT

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