Titus Kotra is a portfolio manager who manages several accounts for high-net-worth clients. He often uses derivatives for suitable client accounts for both hedging purposes and to generate additional income. He tends to avoid purely speculative strategies.

Kotra is currently considering derivatives trades for two of his clients. Client A is more risk averse but is comfortable with derivatives strategies to hedge against potential adverse market movements. Kotra believes that a market correction could cause the stock prices in Client A's portfolio to decline. Client B is less risk averse and prefers strategies that generate income for the portfolio in stable markets. However, he does not like overly risky strategies. Kotra believes that stock prices in Client B's portfolio will remain stable.

Question #1 - 4 of 20

Question ID: 1551783

Which of the following derivatives strategies is *least appropriate* for Client A?

A) Long put.

B) Zero-cost collar.

C) Short straddle.

Explanation

A short straddle involves selling both a call and a put option with the same strike price. It is not appropriate for Client A because it is not a hedging strategy, and it will generate significant losses if the underlying stock price declines (or increases) significantly. Therefore, the strategy performs well in stable markets.

Both a long put and a zero-cost collar (a combination of a long put, long stock, and short call) will protect against price declines, although the collar (because of the short call) will limit the strategy's upside potential.

(Module 6.8, LOS 6.f)

Question #2 - 4 of 20

Question ID: 1551784

Which of the following derivatives strategies is *most appropriate* for Client B?

A) Protective put.

B) Credit spread.

C) Debit spread.

Explanation

A credit spread (bear call or bull put spread) involves selling a more expensive call (put) option and buying a less expensive call (put) option for a net inflow of premium. That satisfies Client B's preference for income in a stable market.

Neither a debit spread (bull call or bear put spread) nor a protective put would be appropriate because they both involve a net outflow of premiums, which would be inconsistent with Client B's preference for income.

(Module 6.8, LOS 6.f)

Question #3 - 4 of 20

Question ID: 1551785

Kotra decides to execute a bull put spread for Client B by selling a put for $5.00 with a strike price of $35 and buying a put for $2.20 with a strike price of $30 on one of the portfolio stocks. The breakeven price for the bull put spread is *closest* to:

A) $32.20.

B) $37.80.

C) $27.20.

Explanation

Breakeven = higher strike − net premium received = $35 − ($5.00 − $2.20) = $32.20.

(Module 6.8, LOS 6.f)

Question #4 - 4 of 20

Question ID: 1551786

In speaking with a colleague, Kotra notes that short straddles are volatility plays that have asymmetric loss potential. Kotra's statement is *most likely* correct regarding:

A) asymmetric loss potential only.

B) both volatility plays and asymmetric loss potential.

C) volatility plays only.

Explanation

Short straddles involve selling both a call and a put with the same exercise prices and maturity on the same underlying stock. They are neutrality plays (not volatility plays) because they work well in stable (flat) markets. The investor profits the most the closer the underlying stock ends up to the strike price.

The potential loss on the short put option is limited to the strike price (if the stock price falls to zero), while the potential loss on the short call option is unlimited (if the stock price rises infinitely). Therefore, the loss potential is asymmetrical.

(Module 6.8, LOS 6.f)

Dennis Austin works for O'Reilly Capital Management and manages endowments and trusts for large clients. The fund invests most of its portfolio in S&P 500 stocks, keeping some cash to facilitate purchases and withdrawals. The fund's performance has been quite volatile, losing over 20% last year but reporting gains ranging from 5% to 35% over the previous five years. O'Reilly's clients have many needs, goals, and objectives, and Austin is called upon to design investment strategies for its clients. Austin is convinced that the best way to deliver performance is to, whenever possible, combine the fund's stock portfolio with option positions on equity.

Question #5 - 7 of 20

Question ID: 1551823

Here is the following scenario:

- Performance to date: up 3%
- Client objective: to maintain a positive stock position and retain upside potential
- Austin's scenario: expect low stock price volatility between now and end of year

Which is the *best* option strategy to meet the client's objective?

A) Bull call.

B) Protective put.

C) Covered call.

Explanation

The client wants to stay positive on the stock, and a protective put will retain the stock upside with limited downside risk. In addition, volatility is low, which will make option prices low. Both of the other strategies will compromise stock upside potential and involve selling options to reduce initial investment cost. Lowering the initial investment was not a specific goal, and it makes little sense to do so while option prices are low.

(Module 6.12, LOS 6.i)

Question #6 - 7 of 20

Question ID: 1551824

Here is the following scenario:

- Performance to date: up 16%
- Client objective: earn at least 15%
- Austin's scenario: good chance of large gains or large losses between now and end of year

Which is the *best* option strategy to meet the client's objective?

A) Long straddle.

B) Short straddle.

C) Collar.

Explanation

A long straddle produces gains if prices move up or down, and limited losses if prices do not move. A short straddle produces significant losses if prices move significantly up or down. A collar (combination of a protective put and covered call) is a bet on low volatility, with limited downside and limited upside potential. Therefore, the collar does not produce large gains or losses.

(Module 6.12, LOS 6.i)

Question #7 - 7 of 20

Question ID: 1551825

Here is the following scenario:

- Performance to date: up 16%
- Client objective: earn at least 15%
- Austin's scenario: good chance of large losses between now and end of year

Which is the *best* option strategy to meet the client's objective?

A) Long call options.

B) Long put options.

C) Short call options.

Explanation

Long put positions gain when stock prices fall and produce very limited losses if prices instead rise. Short calls also gain when stock prices fall, but they create losses if prices instead rise. The other two positions will not protect the portfolio, should prices fall.

(Module 6.12, LOS 6.i)

Question #8 of 20

Question ID: 1587561

What is the expiration payoff of a long straddle, with an exercise price of $100, if the underlying stock price is $125?

A) $0.

B) –$25.

C) $25.

Explanation

A long straddle consists of a long call and put with the same exercise price and the same expiration; at a stock price of $125, the put will expire worthless, and the call value will be $25.

(Module 6.6, LOS 6.f)

Question #9 of 20

Question ID: 1587570

Melinda has a long position on 50,000 of DWD, Inc. (DWD). DWD is currently trading at $42 per share, and it is widely believed that DWD's price will not rise in the next year. She is concerned that the price could fall below $35. Assuming Melinda is seeking protection of her long position for the next year and wants to minimize her total costs, what is her *least likely* course of action?

A) Purchase a put with a strike price of $40.

B) Purchase a put with a strike price of $41 and sell a put with a strike price of $35.

C) Purchase a put with a strike price of $39 and sell a call with a strike price of $45.

Explanation

Purchasing a put with a strike price of $41 will provide her with downside protection if the stock price falls from the current price of $42. However, selling a put with a strike price of $35 exposes her to losses if the stock price falls below $35, just like she is concerned about. Therefore, purchasing a 41 put and selling a 35 put is not an appropriate course of action.

Purchasing a put with a strike price of $39 will provide her with downside protection if the stock price falls from the current price of $42. Selling a call with a strike price of $45 will provide her with some additional income because the stock price is not expected to rise. Therefore, this is a reasonable course of action.

Purchasing a put with a strike price of $40 will provide her with downside protection if the stock price falls from the current price of $42. Therefore, this is a reasonable course of action.

(Module 6.9, LOS 6.f)

Question #10 of 20

Question ID: 1587550

A portfolio manager currently oversees a $300 million equity portfolio, which is invested equally in Stock 1, Stock 2, and Stock 3. The manager expects that over the next six months, the price of Stock 2 will not deviate significantly from its current price of $60, and would like to monetize this view. There is a liquid options market for each security, and both 6-month call and put options are available. Which of the following strategies would be *most appropriate* for the manager?

A) Buy a $62 put.

B) Buy a $58 call.

C) Sell a $65 call.

Explanation

The manager can monetize Stock 2 in a flat market through a covered call strategy, which involves selling a higher strike price call option on the stock. The manager receives the premium income from the call, and benefits from any price appreciation up to $65. The downside of this strategy is that the manager would forego any price appreciation above $65.

Buying a call or a put requires paying a premium, so it would not achieve the goal of monetizing the portfolio assets. In addition, because both the $58 call and $62 put are in the money, they are expensive strategies that will lose their value quickly.

(Module 6.3, LOS 6.b)

Question #11 of 20

Question ID: 1587553

An investor who purchases a stock and wants the maximum price protection for her stock, but is also conscious of up-front cost, should enter into a protective put position using a(n):

A) at-the-money put option.

B) out-of-the-money put option.

C) in-the-money put option.

Explanation

Both the at-the-money and in-the-money put options will offer full price protection because they hedge against any stock price decline below the current stock price. However, the at-the-money put option will be cheaper.

While the out-of-the-money put option is the least expensive of the three, it does not offer full downside price protection—it comes into the money only below the put strike price.

(Module 6.4, LOS 6.c)

Question #12 of 20

Question ID: 1587569

A long position in an asset, combined with a short forward on the same asset (in the same amount), has a delta of:

A) 0 to +1.

B) −1 to 0.

C) 0.

Explanation

The delta of a long asset is +1, whereas the delta of a short forward on the same asset is −1. The delta of the overall position is, therefore, 0 (full hedge).

(Module 6.9, LOS 6.d)

Question #13 of 20

Question ID: 1551757

Suppose an investor purchases a stock at $41 today and sells (takes a short position in) an $45 call, for a $3 premium. The investor's breakeven price is *closest* to:

A) $44.

B) $38.

C) $37.

Explanation

Because the investor receives the $3 premium from selling the call, any amount of stock price increase will leave the investor with a small net gain. The stock price would have to decline by the premium value for the investor to reach breakeven, which will occur at $38 (at $38, the investor has a $3 loss on the stock, exactly offset by the $3 premium received from selling the call).

(Module 6.3, LOS 6.b)

Question #14 of 20

Question ID: 1587552

Joe purchases a stock for $55 and simultaneously purchases a put for $2 that has a strike price of $45. Which of the following statements is correct?

A) The maximum loss is $8.

B) The breakeven price is $47.

C) The maximum profit is unlimited.

Explanation

The maximum profit is the future stock price less the cost of the stock ($55) less the put premium ($2). Theoretically, the future stock price is unlimited, and so the maximum profit is also unlimited.

The maximum loss is the difference between the cost of the stock and the strike price ($55 – $45) plus the put premium ($2), for a total of $12.

The breakeven price is the cost of the stock ($55) plus the put premium ($2), for a total of $57.

(Module 6.4, LOS 6.c)

Question #15 of 20

Question ID: 1551829

An option trader expects that a telecommunications company will make a significant announcement tomorrow about its recent acquisition, either announcing large profits from the acquisition, or large losses. The company's shares are currently trading at $105. The news could cause a 20% change in the share price over the next week, after which the share price is expected to stabilize. Options with 1-week maturities are available. Which of the following strategies is *most appropriate* for the trader?

A) Long at-the-money straddle.

B) Short at-the-money straddle.

C) Bull call spread by buying a $105 strike call and selling a $126 strike call.

Explanation

Given that the trader is looking to take advantage of an increase in volatility with uncertain direction, a long straddle with at-the-money calls and puts is most appropriate. This is an expensive strategy but would be beneficial if the volatility is high.

A short straddle is a neutrality play and would result in potentially large losses under highly volatile share prices. A bull call spread does not allow the trader to benefit from a decline in share price.

(Module 6.12, LOS 6.j)

Question #16 of 20

Question ID: 1587566

A portfolio manager of a large-cap equity fund is convinced that one of her portfolio holdings will exhibit extremely low price volatility over the next three months. The manager has a very high risk tolerance. Which of the following options strategies would provide the maximum potential profit from her forecast?

A) Collar with a higher call premium than put premium.

B) Credit spread with calls.

C) Short straddle.

Explanation

All three strategies are credit strategies, meaning that they result in a net cash inflow to the manager. However, the short straddle will provide the maximum gain because it involves selling both a call and a put, benefiting from receiving two option premiums. Assuming the manager's forecast of no or very low volatility is correct, the options would remain out of the money at expiration and would not be exercised. Both the spread and collar involve buying and selling options simultaneously, and they would not result in the largest cash inflow to the manager.

Note that the short straddle also has the largest potential for loss, and is therefore the riskiest strategy—although this is not a constraint in the question, given the manager's high risk tolerance.

(Module 6.6, LOS 6.f)

Question #17 of 20

Question ID: 1587563

Linda Morgan is in a training program at a large investment bank. Currently, she is spending three months at her firm's derivatives trading desk. One of the traders, Jason Gover, CFA, asks her to compare different option trading strategies. Gover would like Morgan to pay particular attention to strategy costs and their potential payoffs. Morgan is not very comfortable with option models and must first investigate how to properly price European-style and American-style equity options. Gover has given her software that provides various analytical information. Morgan has decided to begin her analysis using two different scenarios to evaluate option behavior. Her scenarios are illustrated in Exhibit 1 and Exhibit 2. Note that all of the rates and yields are on a continuous compounding basis.

Exhibit 1

Exhibit 1	
Stock Price (S)	$100
Call Strike Price (X)	$100
Price	$5.51

Exhibit 2

Exhibit 2	
Stock Price (S)	$100
Put Strike Price (X)	$100
Price	$5.68

Gover instructs Morgan to consider using a straddle in which an at-the-money call and put option would be purchased. Assume all other variables remain identical.

Linda now wants to compute the breakeven points for the straddle using the options and underlying stock in Exhibits 1 and 2. Which of the following are the *closest* to the breakeven points for the straddle?

A) $93.11, $106.89.

B) $95.58, $104.42.

C) $88.81, $111.19.

Explanation

This is the exercise price plus/minus the maximum loss. Because the total cost of the straddle is $11.19, the breakeven points are $100 +/– 11.19.

(Module 6.6, LOS 6.f)

Question #18 of 20

Question ID: 1587562

An investor purchases a stock for $38 and a put for $0.50 with a strike price of $35. The investor sells a call for $0.50 with a strike price of $40. What is the maximum profit and loss for this position?

A) Maximum profit = $2.00 and maximum loss = –$3.00.

B) Infinite profit and maximum loss = –$4.00.

C) Maximum profit = $3.00 and maximum loss = –$4.00.

Explanation

The option position described is a zero-cost collar. It is zero cost because the premium paid for the protective put is offset by the premium received for writing a covered call. The collar will put a band around the prospective returns by limiting the upside and downside of position. The upside will be limited by the strike price on the covered call ($40), while the downside will be limited by the strike price of the put ($35).

Maximum profit = $40 – $38 = $2.

Maximum loss = $35 – $38 = –$3.

(Module 6.6, LOS 6.f)

Question #19 of 20

Question ID: 1587554

An option trader establishes a protective put position by buying a stock at $85 and buying an $86 put option for $2. The breakeven stock price for this position is:

A) $3 above the initial stock price.

B) $2 above the initial stock price.

C) $1 below the initial stock price.

Explanation

The breakeven stock price is $87, which is $2 (= the option premium) above the initial stock price. At $87, the trader has a $2 gain on the stock, offset by the $2 premium paid for the put option. (Note that at $87, the put option is still out of the money.)

(Module 6.4, LOS 6.c)

Question #20 of 20

Question ID: 1551827

An uncovered (short) put option position on an asset can be hedged by:

A) buying the asset.

B) short selling the asset.

C) buying a call.

Explanation

An uncovered short put position would obligate the put seller to buy the asset if the put is exercised. Hedging this position can be accomplished by (short) selling the asset.

(Module 6.12, LOS 6.i)