

Sen Finance FIN201 Practice Questions - III
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Question 45: I) A farmer seeking to hedge his corn harvest during the time of sowing will enter into a long position in corn futures.

II) An investor who holds stocks of MSFT can buy puts to hedge her position.

I&II are: A) TT B) TF C) FT D) FF

Question 46: I) An utility company that uses oil as an input will enter into a long position in oil contracts to hedge costs.

II) A commodity firm that produces copper will enter into a short position in copper contracts to hedge revenues.

I&II are: A) TT B) TF C) FT D) FF

Question 47: A share of MSFT is priced at \$30, a put on it with strike price \$31 and 3 months to expiration is priced at \$4, and the riskless rate of lending for 3 months is 1.2% (not annualized). By the put-call parity the price of the call with strike price \$31 and 3 months to expiration is:

A) 3

B) 3.37

C) 4.63

D) 0.63

Information for question 48 to 50 : Stock A is priced at \$50, a call on stock A with strike price \$54 and maturity in 6 months is priced at \$3, and a put on stock A with strike price \$54 and maturity in 6 months is priced at \$10. The riskless rate for 6 months is 2.1% (not annualized). Assume that you can purchase any fractions of riskless bonds that you like, and there are no transactions costs.

Question 48: Refer to the stock and derivatives above. In setting up the arbitrage you will have:

	Stock A	Call
A)	Long	Long
B)	Long	Short
C)	Short	Long
D)	Short	Short

Question 49: Refer to the bonds and derivatives above. In setting up the arbitrage you will have:

	Bonds	Put
A)	Long	Long
B)	Long	Short
C)	Short	Long
D)	Short	Short

Question 50: Suppose you trade one unit of stock and appropriate quantities of bonds, calls and puts to create an arbitrage profit where you have a net positive cash flow today and zero cash flow on settlement date. Then the net positive cash flow you have today equals:

- A) 4
- B) 4.11
- C) 7
- D) 7.11

Question 51: I) A Fiduciary Call is the combination of a call option and bonds with value on maturity date equal to strike price.

II) A Protective Put is the combination of a stock and a put.

I&II are: A) TT B) TF C) FT D) FF

Question 52: I) A Synthetic Stock can be formed by a portfolio with 1 short Call, 1 long Put and Bonds with maturity value equal to the strike price

II) A Synthetic Call can be formed by creating a portfolio with 1 Stock, 1 Put, and short Bonds with maturity value (on settlement date) equal to strike price.

I&II are: A) TT B) TF C) FT D) FF

Question 53: I) Other things kept constant, an increase in the riskless interest rates will increase call option prices.

II) Other things kept constant, an increase in the riskless interest rates will increase put option prices.

I&II are: A) TT B) TF C) FT D) FF

Question 54: A trader owns an American call option has a strike price of \$200. The current stock price is \$220. The option has 3 months to expiry. The riskless rate for 3 months is 2% (not annualized). The trader is allowed to go both long and short of stocks, options, and bonds (both borrow and lend at the riskless rate). Transactions costs are zero. What is the maximum cash flow the trader can generate today (arising from ownership of the American call option) while keeping all future cash flows non-negative?

- A) 0
- B) 20
- C) 23.92
- D) 28.32

Question 55: On Jan 1, 20X4 A and B enter an Interest Rate Swap. The notional amount of \$20 M, and A is to receive fixed while B is to receive floating. The fixed rate is 5.75%, and payments are to be made every year, termination date is Jan 1, 20X8.

On settlement dates Jan 1, 20X5 and Jan 1, 20X6 the interest rate are 5.72% and 5.83%. The cash flow to A on Jan 1, 20X6 is:

- A) 16000
- B) -16000

- C) 6000
- D) -6000

Question 56: On Jan 1, 20X4 A and B enter an Interest Rate Swap. The notional amount of \$20 M, and A is to receive fixed while B is to receive floating. The fixed rate is 5.75%, and payments are to be made every year, termination date is Jan 1, 20X8. Payments are in arrears.

On settlement dates Jan 1, 20X5 and Jan 1, 20X6 the interest rate are 5.72% and 5.83%. The cash flow to A on Jan 1, 20X6 is:

- A) 16000
- B) -16000
- C) 6000
- D) -6000

Question 57: Two parties A and B enter into a Currency Swap on July 1, 20X2. A agrees to make payments to B for a 4 year \$50 M face value bond with a coupon rate of 4.75% and semi-annual coupons. In exchange B agrees to make payments to A for a 4 year GBP 25 M face value bond with coupon rate 4.9%. On July 1, 20X6, the spot exchange rate is \$1.88 per GBP1. What is the next cash flow to B on July 1, 20X6 from the currency swap?

- A) 3036000
- B) 25612500
- C) 25575000
- D) 51187500

Question 58: I) The principal amounts of a currency swap are typically exchanged by the parties at the beginning of the swap.

II) The principal amounts of a currency swap are typically exchanged by the parties at the end of the swap.

I&II are: A) TT B) TF C) FT D) FF

Question 59: I) An example of an Equity Swap has A giving B the return of investing the notional amount on an equity or an index, while B giving A the return of investing the notional amount at a fixed rate.

II) An example of a Contingent Contract is A agreeing to pay B \$1 M if the Dow Jones Industrial Average rises by 10% in the next 6 months.

I&II are: A) TT B) TF C) FT D) FF

Question 60: I) A Covered Calls is the combination of one short underlying and one long call.

II) A Protective Put is the combination of one long underlying and one short put.

I&II are: A) TT B) TF C) FT D) FF

Question 61: A share of MSFT, currently priced at \$30. The premium is \$4 for a 6-month call option on the MSFT with strike price \$28. At what price will a trader who takes a covered call position break even?

- A) 26
- B) 28
- C) 2
- D) 30

Question 62: I) A Bull Spread is one long call with strike price X_0 , and one short call with strike price X_1 , with $X_0 > X_1$.

II) A Butterfly Spread is the combination of one Bull Spread and one Bear Spread.

I&II are: A) TT B) TF C) FT D) FF

Question 63: I) A Bear Spread is one long call with strike price X_0 , and one short call with strike price X_1 , with $X_0 > X_1$.

II) A trader would use a butterfly spread when he expects prices to remain stable (not change much).

I&II are: A) TT B) TF C) FT D) FF

Question 64: I) A collar is formed by one long underlying, one short call and one short put.

II) A straddle is a combination of a long call and a short put.

I&II are: A) TT B) TF C) FT D) FF

Question 65: Match the following figures to payoff types:

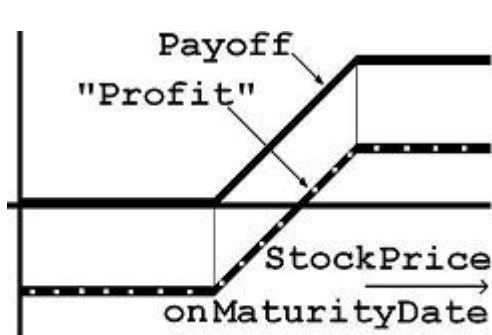


Figure 1

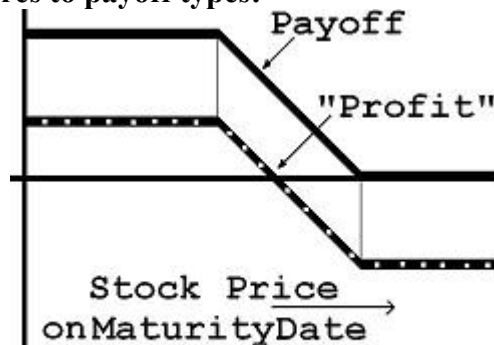


Figure 2

- | | |
|--|--|
| <ul style="list-style-type: none"> A) Bull Spread B) Bull Spread C) Bear Spread D) Bear Spread | <ul style="list-style-type: none"> Figure 1 Figure 2 Bull Spread Bear Spread Bull Spread Bear Spread |
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Question 66: Match the following figures to payoff types:

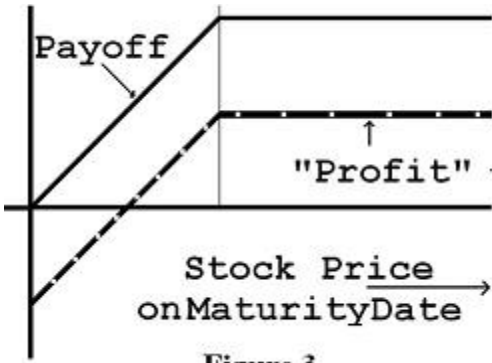


Figure 3

Figure 3

- A) Covered Call
- B) Covered Call
- C) Collar
- D) Collar

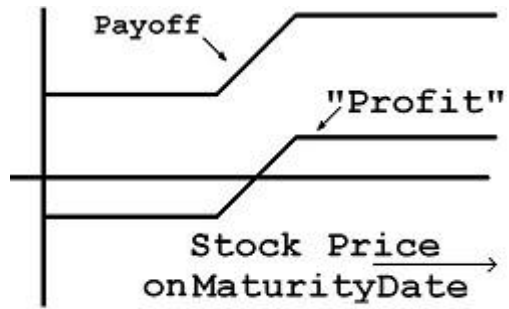


Figure 4

Figure 4

- A) Covered Call
- B) Collar
- C) Covered Call
- D) Collar

Question 67: Match the following figures to payoff types:

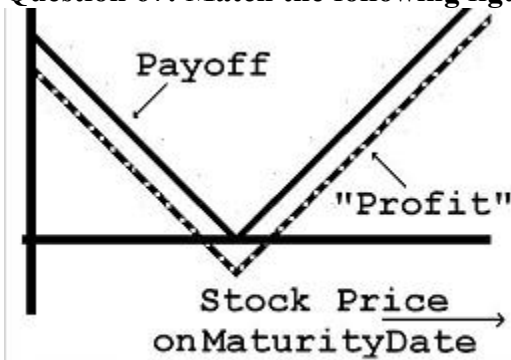


Figure 5

Figure 5

- A) Butterfly
- B) Butterfly
- C) Straddle
- D) Straddle

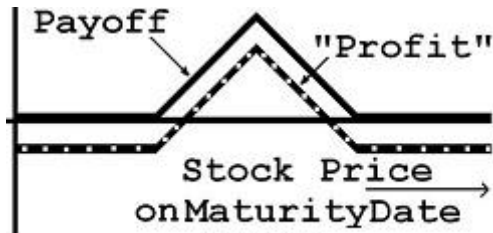


Figure 6

Figure 6

- A) Butterfly
- B) Straddle
- C) Butterfly
- D) Straddle

- 45) C
- 46) A
- 47) B
- 48) C
- 49) C
- 50) B
- 51) A
- 52) C
- 53) B
- 54) C
- 55) B
- 56) C
- 57) A
- 58) A
- 59) A
- 60) D
- 61) A*
- 62) C
- 63) A
- 64) D
- 65) B
- 66) B
- 67) C

Answer 61: Breakeven equals current price minus premium obtained by selling call.

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