Econ 337 Spring 2014
Final Due 5/7/2014 @ 10am
100 points possible

Fill in the blanks (2 points each)

1. Price discovery is the process by which _______________ and _______________ arrive at a specific price for a given lot of produce at a given location for a specific time period

2. A futures contract is a legally binding contract to ___________ or ___________ delivery of the commodity.

3. Hedging – holding equal and opposite positions in the ___________ and ___________ markets.

4. In a hedge, the net price will differ from the expected price only by the amount that the actual

______________ differs from the expected ______________.

5. Futures reflect ______________ supply and demand; basis reflects _____________ supply and demand.

6. A put option contains the right to _____________________ a futures contract.

7. A call option contains the right to _____________________ a futures contract.

8. The ________________________ is the predetermined price for the trade of futures contracts in an option.

True or False (2 points each)

9. T F Basis = Futures price – Cash price

10. T F A "bear" thinks prices will decline.

11. T F A "bull" thinks prices will decline.

12. T F Hedgers are willing to make or take physical delivery because they are producers or users of the commodity.

13. T F Speculators have no use for the physical commodity.

14. T F Futures are not a "zero sum game" as more people lose money on futures than gain money.

15. T F Puts and calls are opposite positions in the same market.

16. T F Inverse carry is defined as when nearby futures are priced at a discount to further out futures.

Short Answer (2 points each)

17. How many bushels are in a corn or soybean futures contract?

18. What risks do producers still face under a hedge-to-arrive contract?

19. Give a couple of reasons why a producer would use a deferred price contract.

Short Answer (4 points each)

20. I put on a short hedge using Nov. 2014 soybean futures on Apr. 25. To do that did I buy or sell a futures contract?

The futures price was $12.40 per bushel. If my expected basis is -$0.60 per bushel and the broker charges me a 2 cent per bushel commission, what is my expected price under the short hedge?

21. I purchased a Dec. 2014 corn put option with a $4.80 strike price. The premium was 19 cents. If my expected basis is -$0.20 per bushel and my broker charges me a 1 cent per bushel commission, what is my floor price with this option?

The Dec. 2014 corn futures prices was $5.06 when I purchased the option. What is the intrinsic value of the option?

22. For 2014, you have an expected corn yield of 200 bushels per acre on your farm, based on your previous corn yields. The spring time insurance price for corn is $4.62 per bushel. If you get 75 bushels per acre in 2014 and the harvest time price was $5.00 per bushel, what would be the insurance payment if you bought 80% yield insurance?

23. For 2014, you have an expected corn yield of 200 bushels per acre on your farm, based on your previous corn yields. The spring time insurance price for corn is $4.62 per bushel. If you got 75 bushels per acre in 2014 and the harvest time price was $5.00 per bushel, what would be the insurance payment if you bought 80% revenue insurance (with the harvest price option)?

Matching (1 point each)

Answer questions matching the following action to the appropriate statement. Terms may be used more than once.

a) Sell a call option	c) Sell a put option	e) Sell a futures contract
b) Buy a call option	d) Buy a put option	f) Buy a futures contract

24. _____ Gain on price decreases, but lose on price increases.

25. _____ Limited risk if futures prices rise, but unlimited profit potential if they fall.

26. _____ Receive a premium, but maybe obligated to buy a futures contract at the strike price.

27. _____ Protects against lower prices but doesn't prevent gains from higher prices.

28. _____ Have the right, but not the obligation, to buy a futures contract at the strike price.

29. _____ Receive payment into a margin account if futures price increases.

Long Answer (6 points each)

30. How much are the total storage and opportunity costs for soybeans that I have in storage given the following details?

    50,000 bushels of soybeans stored for 4 months
    3 cents per bushel for each month
    Harvest price of $15 and a short-term interest rate of 3%

31. Given the data below, compute a 14-day Relative Strength Index for Nov. 2014 soybeans.

Date	Futures Price
4/4/2014	12.08
4/7/2014	12.08
4/8/2014	12.18
4/9/2014	12.27
4/10/2014	12.25
4/11/2014	12.15
4/14/2014	12.20
4/15/2014	12.29
4/16/2014	12.37
4/17/2014	12.39
4/21/2014	12.24
4/22/2014	12.16
4/23/2014	12.27
4/24/2014	12.31
4/25/2014	12.40

Margins (12 points)

32. I am a hedger that went short on December 2014 corn on Apr. 21, 2014 at $4.90 per bushel. The initial margin requirement is $2,700. The maintenance margin is $2,000. Fill out my margin account for one futures contract.

Date	Futures Price	Gain/Loss	Margin Call	Account Balance
4/21/2014	$4.90	X	X	$2,700.00
4/22/2014	$4.9575			
4/23/2014	$5.045			
4/24/2014	$5.0275			
4/25/2014	$5.0625			

Math and Graph (16 points, please show your work)

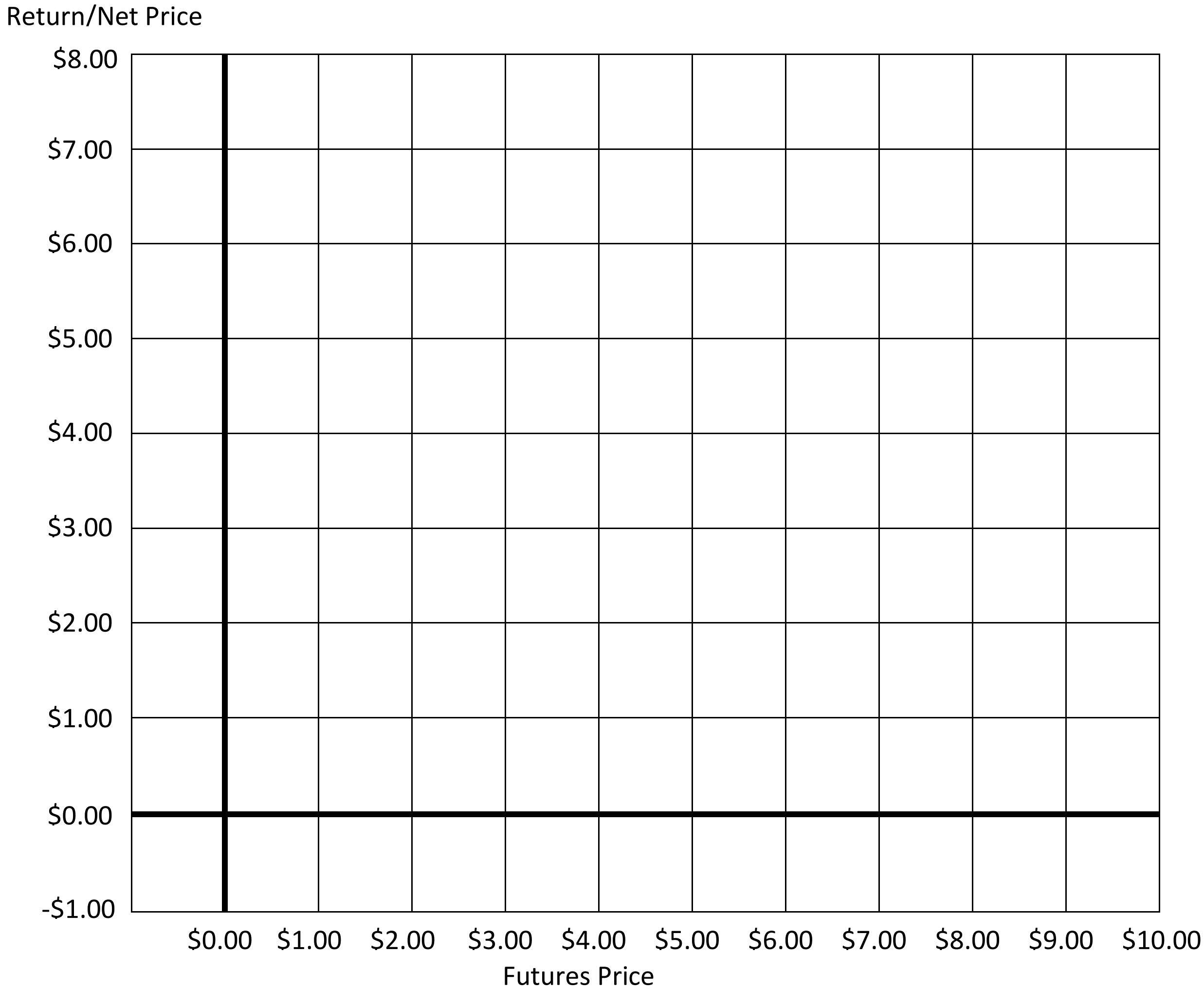
33. A corn producer is using a “window” or “fence” strategy to protect against price risk. She buys a $5.50 put option on Dec. 2014 corn. The premium for the put option is $0.70. At the same time, she sells a $7.00 call option on Dec. 2014 corn. The premium for the call option is $0.05. Her broker charges her a commission of 1 cent per bushel for each transaction. At the time, the Dec. 2014 corn futures price was $5.06. She expects a harvest time basis of -$0.25 per bushel.

Please graph the relevant cash price, option return, and net price lines ***<u>on the next page</u>***.

What is her floor price?

If the Dec. 2014 corn futures rises to $7.25, what is her expected net price?

If the Dec. 2014 corn futures falls to $3.50, what is her expected net price?


Return/Net Price
$8.00
$7.00
$6.00
$5.00
$4.00
$3.00
$2.00
$1.00
$0.00
-$1.00
$0.00
$1.00
$2.00
$3.00
$4.00
$5.00
$6.00
$7.00
$8.00
$9.00
$10.00
Futures Price