Final Exam

The multiple choice questions are 3 points each.

1. Compared to purchased retail prices, farm prices tend to
   a. Be less variable
   b. Be more variable
   c. Vary about the same
   d. Move in an unrelated way

2. The basis for corn in Pennsylvania is
   a. usually positive because Pennsylvania is a corn deficit area
   b. usually lower around harvest time to encourage farmers to store grain
   c. about the same as the transport cost from the Midwest in March, April, and May
   d. all of the above

3. An egg producer interested in hedging his corn costs would
   a. Sell a corn futures contract
   b. Buy a put
   c. Sell a call
   d. None of the above

4. A hog farmer would buy a call
   a. To protect himself against his output price falling
   b. As an alternative to selling a futures contract
   c. Because he did not want to miss out on a possible corn price decrease
   d. Because he did not want to miss out on a possible hog price increase

5. Hedging is
   a. A method of locking in the price of your output well before it is available to deliver
   b. A way to benefit from price increases without putting up much money
   c. Much like gambling in that you are hoping prices are going to go your way
   d. A way to reduce risk by buying a futures contract on what you are producing

6. A potato chip company involved in storage of potatoes
   a. Does so because the government pays it to do so.
   b. Does so because it thinks it can buy now and pay to store cheaper than buy them later.
   c. Does so because the only cost involved is renting storage space
   d. Does so to keep the french fry manufacturers from tying up all the potato supply

7. When a Pennsylvania soybean farmer buys a soybean contract for hedging
   a. He is selling the crop indirectly with the intention of getting out of the contract later and selling his beans locally
   b. He will deliver to Chicago if the basis is higher than he originally expected
   c. He has made a mistake and increased rather than decreased his risk
   d. He has locked in his soybean price and can now concentrate on his farming

8. When hedging using futures markets, the basis is important because
   a. The big grain companies often manipulate the basis and hurt the farmers
   b. It allows the farmer to adjust the Chicago price to estimate what local price he is locking in
   c. If the basis is positive, the farmer may want to deliver on the contract
   d. All of the above

9. Import quotas are often used
   a. To protect domestic producers
   b. To raise revenue
c. To force importers to bribe Congress in order to stay in business
d. To protect domestic consumers

10. A tariff on cheese by the U.S. government
   a. Increases the U.S. exports of cheese
   b. Makes U.S. consumers better off
   c. Makes foreign cheese producers better off
   d. Protects U.S. cheese makers from foreign competition

11. The strong American dollar and the relative devaluation of the Italian lira
   a. Makes American pasta cheaper in Italy
   b. Makes Italian olive oil cheaper in Pennsylvania
   c. Increases American exports to Italy
   d. All of the above

12. Which of the following is not a cost of storage?
   a. Product deterioration
   b. Insurance
   c. Interest costs
   d. Having the price of the product increase

13. Dairy farmers receive a pooled price because
   a. It would be impossible to maintain the classified pricing system without pooling
   b. Otherwise no one would deliver milk to the cheese manufacturer
   c. Otherwise everyone would like to deliver milk to the fluid manufacturer
   d. All of the above

14. Marketing stages can be vertically coordinated by (or linked together by):
   a. Prices
   b. Contracts
   c. Vertical integration
   d. All the above

15. A hog farmer wishes to lock in his profits by hedging the price of slaughter hogs (his output) and corn (his input). He should
   a. Buy a hog futures contract and sell a corn futures contract
   b. Sell a hog futures contract and buy a corn futures contract
   c. Buy a hog futures contract and buy a corn futures contract
   d. Sell a hog futures contract and sell a corn futures contract

16. A dairy farmer is thinking about hedging his milk price. He should:
   a. Buy a milk futures contract
   b. Sell a milk futures contract
   c. Buy a call
   d. Sell a call

17. Which of the following is not a determinant of the market demand for eggs
   a. The income of consumers
   b. The price of labor in egg packing houses
   c. The price of eggs
   d. The price for other sources of protein

18. When choosing between modes of transport
   a. The size of the shipment is important
   b. The distance to be traveled is important
   c. The ease of loading and loading is important
   d. All of the above
19. Monopsony power
   a. occurs when there are only a few buyers for a product
   b. is a problem for farmers sometimes because their input markets are so concentrated
   c. is typical in most food product industries
   d. is a high priority of our antitrust laws

20. Market power is
   a. something consumers have because “the consumer is always right”
   b. a necessary evil in industry so we don’t worry about controlling it
   c. commonly faced by farmers both when they are buying and when they are selling
   d. provided by the government to farmers through the price support programs

21. When figuring the optimal fluid milk plant size, which of the following is **not** a determining factor
   a. Transportation cost for assembling the raw milk
   b. Density of customers around the plant
   c. Size of the dairy farms in the region
   d. Economies of scale in plant operations

22. If the own price elasticity of demand is inelastic and the price goes up by 1 percent
   a. The quantity demanded goes up by more than 1 percent
   b. The quantity demanded goes down by more than 1 percent
   c. The quantity demanded goes up by less than 1 percent
   d. The quantity demanded goes down by less than 1 percent

23. Food companies are trying to sell more products overseas because
   a. The growth potential of the domestic market is small
   b. Overseas customers aren’t getting what they need from their local suppliers
   c. Other countries are encouraging American companies to enter their market
   d. The ethnic food craze in America is teaching the companies how to sell foreign foods

24. The various prices in a market reflect
   a. Differences in delivery time
   b. Differences in product quality
   c. Differences in delivery location
   d. All of the above

25. Which of the following is **not** a benefit of farmer cooperatives?
   a. Increased clout in the marketplace
   b. Allow farmers to share in the profits of the middleman
   c. Allows farmers to operate a business that would not be viable otherwise
   d. Helps farmers avoid monopoly power of the middleman

26. A dairy farmer will buy a milk put
   a. When he thinks the milk price may go up further but is still worried it may go down
   b. When he thinks the milk price might go down but is pretty sure it won’t go higher
   c. After he has contracted to sell his milk for a fixed price to his cooperative
   d. When he isn’t worried about milk price changes

27. Advertizing for commodity food products
   a. Is common because the advertizer can easily reap the benefits of the ads.
   b. Is subject to the “free rider “problem
   c. Is not necessary because consumers will buy the products in any case
   d. Is easy to organize because farmers are convinced it is worth the money

28. The U.S. growth in food demand is
   a. Enough to allow the large food companies plenty of opportunity to sell more of their products
   b. About 5% per year
c. About 1.5% per year
d. Seems to be unlimited because Americans are just getting fatter and fatter

29. Which of the following is **not** an area where the government gets involved in regulating food marketing?
   a. Nutritional labeling
   b. Weights and measures
   c. Import subsidies
   d. Food safety

30. The North American Free Trade Agreement (NAFTA)
   a. Is designed to make the borders between the U.S. and Canada less of a barrier to trade
   b. Ultimately will lead to a single North American currency
   c. Is universally beneficial to Americans
   d. Is very popular with Florida tomato growers

31. The own price elasticity of supply of milk is
   a. Elastic in the short run
   b. Affected by the biological limitations on changing milk production
   c. Dependent on consumer income
   d. Constant regardless of the time period considered

32. The own price elasticity of demand for milk
   a. Is about the same everywhere in the world
   b. Is between 0 and 1
   c. Is inelastic
   d. Is between 1 and 2

33. A price ceiling on beef
   a. Would lead to an excess supply
   b. Would lead to better price signals to consumers
   c. Would lead to more beef exports
   d. Would decrease the demand for corn

34. Market structure is important
   a. Because it limits the possible conduct of buyers and sellers
   b. Because it is easier to observe than market performance
   c. Because you can solve many problems for good by regulating structure
   d. All of the above

35. Which of the following is **not** a type of market conduct?
   a. Monopoly
   b. Predatory pricing
   c. Price leadership
   d. A cartel

36. Which of these is **not** a recent farming trend?
   a. Enterprise specialization (e.g., only dairy)
   b. Geographic concentration
   c. More reliance on purchased inputs
   d. Growing production role of smaller farmers

37. Because of its biological nature, ag output varies in quality. This creates a need for
   a. Transportation
   b. Assembly
   c. Sorting and grading
   d. Risk insurance
38. Because of its biological nature, ag output varies in quantity from season to season. This creates a need for
   a. transportation
   b. assembly
   c. sorting and grading
   d. storage

39. The boundary between two producers’ sales areas will be
   a. equidistant from both
   b. closer to the one which has lower production costs
   c. where the costs of production plus costs of transport are equal for both
   d. where the costs of transportation equal for both

40. Which is not a reason processors are contracting more with farmers?
   a. they want to ensure uniform quality
   b. they want to buy the product more cheaply
   c. they want to assure a predictable supply
   d. they want to ensure that product safety procedures are followed

The following questions are worth 5 points

You are a wheat farmer that wants to hedge 10,000 bushels of wheat. The price for September 2001 is $3.20/bushel. The expected basis is $.20/bushel.

41. What is your expected price if you use the futures market to hedge? Please show your work.

42. What actions do you take today in order to place your hedge? Please be specific. Are you buying or selling? How many contracts?

43. It is now September 2001. The price of wheat locally is $2.75. The price in Chicago is $2.50. Exactly what do you do to sell your wheat?

44. What is your net price, when you have finished? Please show your work?

45. (10 points) On the graph below, graph the following market
   
   Supply \quad Q = 3 + P
   
   Demand \quad Q = 11 - P

   What is the equilibrium price? __________

   What is the equilibrium quantity? __________
The multiple choice questions are 3 points each.

1. The more expensive the storage of a farm product, the ______ you would expect the seasonal price rise to be.
   a. Lower  
   b. Higher  
   c. More nearly flat  
   d. More limited or moderate

2. Which of the following contributed to the decline of terminal markets and the trend toward decentralization:
   a. Improved highway transportation  
   b. Improved communication  
   c. Shift toward larger-scale production units  
   d. All the above.

3. The main goal of coops is:
   a. Profits for their stockholders  
   b. Services to their members at cost  
   c. Large returns to members on the money they have invested  
   d. Avoiding federal taxes on their operations

4. For which product will farmer’s share be lowest and the marketing margin highest?
   a. McDonald’s french fries  
   b. Frozen french fries  
   c. Canned potatoes  
   d. Fresh potatoes

5. Agway, which sells fertilizer, feed and seed, is an example of a ______ coop:
   a. Purchasing and supply  
   b. Marketing  
   c. Service  
   d. Processing

6. A hog farmer wishes to lock in its profits by hedging the price of slaughter hogs (his output) and corn (his input). He should
   a. Buy a hog futures contract and sell a corn futures contract  
   b. Sell a hog futures contract and buy a corn futures contract  
   c. Buy a hog futures contract and buy a corn futures contract  
   d. Sell a hog futures contract and sell a corn futures contract

7. A put option
   a. Is an insurance policy against high prices  
   b. Is the right but not the obligation to buy something at a fixed price  
   c. Is an insurance policy against low prices  
   d. Can be used by an egg farmer to hedge his feed costs

8. A cattle feeder who wishes to protect himself against adverse price moves for fat cattle (his output) and corn (his input) could
   a. Buy a put on corn and a put on cattle  
   b. Buy a call on corn and a call on cattle  
   c. Buy a call on corn and a put on cattle  
   d. Buy a put on corn and a call on cattle
9. When making the decision to store corn until May or sell it now, which does a person not need to know?
   a. The cost per month to store
   b. The expected price in May
   c. The price now
   d. The size of this year’s corn crop

10. Import quotas on cheese are not used for which of the following:
    a. To protect domestic dairy farmers from foreign competition
    b. To keep domestic milk prices high
    c. To restrict the amount of New Zealand cheese on U.S. markets
    d. To raise revenue

11. A tariff on tomatoes imported from Mexico:
    a. Hurts Mexican consumers
    b. Raises the price of tomatoes in Mexico
    c. Helps American tomato farmers
    d. Is popular with American consumers

12. The value of Argentina’s currency dropped sharply this year. This
    a. Made Japanese cars cheaper in Argentina
    b. Made Argentinian beef cheaper in New York
    c. Decreased Japanese imports of Argentinian soybeans
    d. Increased Argentinian imports of U.S. poultry

13. Dairy farmers receive a weighted average or pooled price because:
    a. It is the most efficient method of pricing milk
    b. Otherwise no one would want to sell to the low-priced cheese market
    c. Milk used for drinking is of higher quality
    d. Consumer expectations require it

14. A barge holds as much grain as
    a. 3 trucks
    b. 15 trucks
    c. 60 trucks
    d. 100 trucks

15. Barges are used only for long distance corn movements despite having a very low per-mile costs because
    a. The costs of loading, unloading, and other costs are high enough to make other modes cheaper for short distances.
    b. Corn is too perishable to move in such a slow manner.
    c. Nearby customers don’t need such a large sized load.
    d. There aren’t any customers on the northern half of the Mississippi River.

16. Dairy farmers’ opinions about milk marketing orders differ widely across the country because
    a. The education level of farmers is much lower in the South
    b. The cost of producing milk differs so much across regions
    c. The size of farms is much different in other regions
    d. Regional differences in usage of fluid milk compared to cheese production makes some regions prices much higher than other regions

17. The Flour Milling industry
    a. Gets a sizeable portion of the revenue from a loaf of bread
    b. Is a labor-intensive industry
    c. Is dominated by a few large firms
    d. All of the above
18. Country elevators can combine the grain of different farmers:
   a. Because the farmers have no alternatives
   b. Because grain is a commodity product and is all the same
   c. Because the grading system allows them to identify grain of comparable quality
   d. Because grain is a differentiated product and will be easy to work out later

19. Which type of supply curve will be most elastic?
   a. short-run
   b. intermediate-run
   c. long-run
   d. all are same

20. The slope of a demand curve shows how the quantity demanded changes as ________
   a. incomes change
   b. prices change
   c. tastes and preferences change
   d. all the above

21. Which of these is **not** a characteristic of American farming today?
   a. enterprise specialization (e.g., a farm specializes on dairy)
   b. geographic concentration
   c. more reliance on purchased inputs
   d. growing production role of smaller farmers

22. Marketing stages can be **vertically coordinated** by (or linked together by):
   a. Prices
   b. Contracts
   c. Vertical integration
   d. All the above

23. When choosing between modes of transport
   a. The size of the shipment is important
   b. The distance to be traveled is important
   c. The ease of loading and loading is important
   d. All of the above

24. Monopsony power
   a. occurs when there are only a few buyers for a product
   b. is a problem for farmers sometimes because their input markets are so concentrated
   c. is typical in most food product industries
   d. is a high priority of our antitrust laws

25. Market power is
   a. something consumers have because “the consumer is always right”
   b. a necessary evil in industry so we don’t worry about controlling it
   c. commonly faced by farmers both when they are buying and when they are selling
   d. provided by the government to farmers through the price support programs

26. When figuring the optimal fluid milk plant size, which of the following is **not** a determining factor
   a. Transportation cost for assembling the raw milk
   b. Density of customers around the plant
   c. Quality of milk produced in the area
   d. Economies of scale in plant operations

27. If the own price elasticity of demand is inelastic and the price goes up by 1 percent
   a. The quantity demanded goes up by more than 1 percent
   b. The quantity demanded goes down by more than 1 percent
c. The quantity demanded goes up by less than 1 percent

d. The quantity demanded goes down by less than 1 percent

28. The various prices seen at any one time in the corn market reflect
   a. Differences in the delivery time
   b. Differences in the quality of the corn
   c. Differences in the delivery location
   d. All of the above

29. The own price elasticity of supply of milk is
   a. Elastic in the short run
   b. Affected by the biological limitations on changing milk production
   c. Dependent on consumer income
   d. Constant regardless of the time period considered

30. The own price elasticity of demand for milk
   a. Is about the same everywhere in the world
   b. Is between 0 and 1
   c. Is inelastic
   d. Is between 1 and 2

31. Farmers have an inferior bargaining position because
   a. They are small compared to the processors
   b. Because the government is always interfering in agricultural markets
   c. Because the products they produce are differentiated
   d. All of the above

32. The boundary between two producers’ sales areas will be
   a. equidistant from both
   b. closer to the one which has lower production costs
   c. where the costs of production plus costs of transport are equal for both
   d. where the costs of transportation equal for both

33. Why is so much of agricultural production in Ukraine from household plots?
   a. Incomes are so low that people need the home-grown produce to live
   b. The government has not privatized (as we understand the term) the collective farms
   c. The large farms are so badly run that they produce far less than the country needs
   d. All of the above

34. The concept of a price mountain
   a. Applies to something a farmer sells
   b. Makes farmland far from the market less valuable
   c. Is important to help understand why some products are grown near the market and others farther away
   d. All of the above

35. We have fresh peaches in Pennsylvania supermarkets in years when our local peach crop fails
   a. Because peaches from last year are brought out of storage
   b. Because the peach market is the whole country and peaches from elsewhere are brought into Pennsylvania
   c. Because most Pennsylvania peaches are canned and our fresh market peaches usually come from somewhere else anyway
   d. Because peaches are so cheap to transport that they can be hauled here from California and still undercut Pennsylvania peaches

36. The market allocates potatoes to the different uses (fresh market, chips, frozen french fries)
   a. By each person in the market making the decision that makes the most sense to him/her
b. By the National Potato Council coordinating movements in order to maximize grower revenue  
c. By extensive contracts by the grocery stores for potato products that reach all the way back to the farm level  
d. By sending all the high quality potatoes to the fresh market and processing anything that isn’t good enough to sell fresh

37. A Pennsylvania farmer who is considering storing corn from the harvest period until April  
a. Has a cost advantage over commercial storage facilities  
b. Need not consider hedging because he already has the corn in hand  
c. Has an additional few cents to work with because the basis is larger in April than in the Fall  
d. Only has to worry about the loss in value due to deterioration of the quality of the corn

38. Which of the following is **not** an issue for a vegetable grower who sells his production directly to consumers?  
a. He must have a plan for the produce that he can’t sell  
b. He must figure out what to do with the low quality production  
c. He must have a contract to ensure a market  
d. He must grow a variety of products in order to manage the growing season

39. The vegetable marketing cooperatives in Pennsylvania  
a. Allow individual farmers to specialize more than they could otherwise  
b. Allow farmers to concentrate on their farming rather than being distracted by the time and management issues of direct marketing  
c. Requires the farmers to sacrifice some of their autonomy to ensure the cooperative succeeds  
d. All of the above

40. The meat packing industry completely restructured in the 1960-1980 period  
a. because they produced a commodity product and couldn’t prevent new entry  
b. because technological improvements made existing plants outmoded  
c. because improvements in the transportation system allowed plants to move closer to the producer  
d. all of the above

You run a flour mill that wants to hedge 10,000 bushels of wheat for next September. The price for September 2002 is $2.95/bushel. The expected basis is $.15/bushel. A wheat contract is 5,000 bushels. Commissions are $0.01 per bushel.

41. What is your expected price for September? Please show your work. (3 points)
42. What actions do you take today in order to place your hedge? Please be specific. Are you buying or selling? How many contracts? (3 points)
43. It is now September 2002. The price of wheat locally is $3.45. The price in Chicago is $3.25. **Exactly** what do you do to buy your wheat? Please be specific. Are you buying or selling? How many contracts? (3 points)
44. What is your net price, when you have finished? Please show your work? (6 points)
45. (15 points) On the graph below, graph the following trade situation  

The U.S. has an import demand curve for honey of  \( Q = 12 - P \)  
The rest of world has a supply curve to sell honey to us of  \( Q = -2 + P \)  

With free trade, what is the equilibrium price? ______ What is the equilibrium quantity? ______

The honey growers pull some political strings and get a $2 tariff imposed.
What is the new equilibrium quantity? _________ What is the new price in the U.S.? _______________

How much revenue does the government collect? __________

**AGRICULTURAL ECONOMICS 102**
**FALL 2002**

**Final Exam**

1. The table below lists the corn basis where you live. The price on the Chicago Board of Trade for the March contract is $2.38 per bushel and for the May contract is $2.41. You are an egg producer in Lancaster County, PA who needs to buy 10,000 bushels of corn in April. Assume brokerage fees are zero. (15 points)

<table>
<thead>
<tr>
<th>Month</th>
<th>AVG</th>
<th>HIGH</th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAN</td>
<td>25</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>FEB</td>
<td>27</td>
<td>41</td>
<td>12</td>
</tr>
<tr>
<td>MAR</td>
<td>23</td>
<td>38</td>
<td>10</td>
</tr>
<tr>
<td>APR</td>
<td>27</td>
<td>52</td>
<td>11</td>
</tr>
<tr>
<td>MAY</td>
<td>34</td>
<td>75</td>
<td>16</td>
</tr>
<tr>
<td>JUN</td>
<td>42</td>
<td>81</td>
<td>17</td>
</tr>
<tr>
<td>JUL</td>
<td>41</td>
<td>63</td>
<td>12</td>
</tr>
<tr>
<td>AUG</td>
<td>39</td>
<td>67</td>
<td>20</td>
</tr>
<tr>
<td>SEP</td>
<td>34</td>
<td>70</td>
<td>-2</td>
</tr>
<tr>
<td>OCT</td>
<td>17</td>
<td>35</td>
<td>-4</td>
</tr>
<tr>
<td>NOV</td>
<td>15</td>
<td>38</td>
<td>-0</td>
</tr>
<tr>
<td>DEC</td>
<td>15</td>
<td>30</td>
<td>-9</td>
</tr>
<tr>
<td>YEAR</td>
<td>29</td>
<td>81</td>
<td>-9</td>
</tr>
</tbody>
</table>

**a.** What is the implied April price for you in Pennsylvania?

**b.** Outline exactly what steps you would use to hedge your corn needs today using futures contracts. Be specific and include what happens now and in April.

**c.** In April the price of the May contract turns out to be $3.00 and your local price is $3.30. How did your hedge work out? Please give your net price paid for corn and describe in words how it compared to your plans.

2. You are a monopolist with the demand curve $Q = 24 - 2P$. Your Supply (Marginal Cost) Curve is $S = -4 + P$. On the grid below graph the problem. (15 points)

The Quantity you will produce is _____

The Price you will charge is _______

What is the elasticity of demand at the equilibrium price and quantity? Please show your work.

3. You are a monopsonist with the demand (Marginal Value) curve $Q = 13 - P$. The Supply Curve you face is $S = -1 + P$. On the grid below graph the problem. (15 points)
The Quantity you will purchase is ______
The Price you will pay is ______

What is the elasticity of supply at the equilibrium price and quantity? Please show your work.

4. Pears can be used for either fresh market or they may be canned.
   The farm supply of pears is \( S = -2 + P \).
   The farm-level demand for fresh pears is \( D_F = 11 - P_F \).
   The wholesale demand for canned pears is \( Q_W = 20 - 4P_W \).
   The cost of processing a case of pears is $1 per case.
   One bushel of farm pears makes two cases of canned pears. In the space below, please find the equilibrium for the farm pear market and derive the related information to fill in the blanks below. Please show your work. (15 points)

Farm price _____
Farm Quantity supplied _____
Farm quantity to Fresh market ________
Farm Quantity to Processed Market ______
Wholesale Price ______
Wholesale quantity __________

5. The following equations describe a two region problem
   \[ D_1 = 14 - P_1 \quad S_1 = 6 + P_1 \]
   \[ D_2 = 13 - P_2 \quad S_2 = -3 + P_2 \]

What is the equilibrium price and quantity in the two regions in the absence of trade? Please show your work (15 points)

\( P_1 = \) ________  \( Q_1 = \) ____________  \( P_2 = \) ____________  \( Q_2 = \) ____________

What are the equilibrium prices and quantities if trade can occur and the price of transportation is zero? How much is traded? Please show your work

\( P_1 = \) ________  \( D_1 = \) ____________  \( S_1 = \) ____________
\( P_2 = \) ____________  \( D_2 = \) ____________  \( S_2 = \) ____________

Quantity of Trade ____________ Surplus is shipped from region _____ to region _____

The multiple choice questions are 3 points each.

6. The price flexibility of demand is the:
   a. Percent change in quantity supplied over the percent change in price
b. Percent change in quantity purchased over the percent change in price  
c. Percent change in price over the percent change in quantity supplied  
d. Percent change in quantity supplied over the percent change in production costs

7. For effective demand to exist, consumers must:  
a. want a product  
b. have income to pay for a product  
c. understand the product and its uses  
d. a and b

8. A price floor  
a. can keep the market from reaching equilibrium  
b. ensures that suppliers will always have a market  
c. may lead to a shortage of the product in the store  
d. is an effective way of keeping consumer prices low

9. If the own-price elasticity of demand of butter is -0.50,  
a. A 10 cent decrease in price increases consumption by 0.5 pounds.  
b. A 10 percent decrease in price increases consumption by 5 percent  
c. A 10 pound increase in consumption increases the price by 50 cents  
d. A 10 percent decrease in price decreases consumption by 5 percent

10. Because of its biological nature, ag output varies in quality. This creates a need for  
a. transportation  
b. assembly  
c. sorting and grading  
d. risk insurance

11. The advantages to a vegetable freezing company that has contracts with farmers producing peas include  
a. Coordination of the flow of peas to the factory  
b. Lower prices paid for the peas  
c. Increased flexibility to react to changing market conditions around harvest time  
d. Protection against a failure of the pea crop

12. Farm meat prices can go down while retail meat prices go up  
a. If consumer incomes rise and consumers buy more meat  
b. If there is an exceptionally big slaughter and retailers must “sell it or smell it”  
c. If meat processors’ costs rise  
d. A consumer health scare causes consumers to avoid beef.

13. Farmers have an inferior bargaining position because  
a. They are small compared to the processors  
b. Because the government is always interfering in agricultural markets  
c. Because the products they produce are differentiated  
d. All of the above

14. Market power is  
a. something consumers have because “the consumer is always right”  
b. a necessary evil in industry so we don’t worry about controlling it  
c. commonly faced by farmers both when they are buying and when they are selling  
d. provided by the government to farmers through our price support program

15. An oligopoly is  
a. a market with a few buyers and many sellers  
b. a market with a few sellers and many buyers
c. a market with a lot of small sellers of differentiated products  
d. a market with one buyer and one seller

16. Which of the following contributes to making markets more competitive?  
a. easy entry for new firms  
b. product differentiation  
c. strong consumer brand preferences  
d. all the above

17. Market conduct includes  
a. How many sellers there are in a market  
b. A firm’s policies toward its product market  
c. How well an industry does what society expects of it  
d. How easy it is to enter a market

18. The prices charged by natural monopolies are controlled by the public utility commission  
a. because monopolies are forbidden by the Sherman Antitrust Act  
b. because the monopolies are necessary but we don’t want them to overcharge us  
c. because it is a leftover law from a particularly socialist period in our history  
d. because our electricity supply is too important to be left to the private sector

19. Most farm products are not advertised because  
a. Consumers need food and so they will have to buy anyway  
b. Free rider problems keep farmer’s from capturing all of the benefits of their ads  
c. Most farm products are sold overseas and they wouldn’t see the ads  
d. All of the above

20. When choosing between modes of transport  
a. The size of the shipment is important  
b. The distance to be traveled is important  
c. The ease of loading and loading is important  
d. All of the above

21. The concept of a price mountain  
a. Applies to something a farmer sells  
b. Makes farmland far from the market less valuable  
c. Is important to help understand why some products are grown near the market and others farther away  
d. All of the above

22. The more expensive the storage of a farm product, the ______ you would expect the seasonal price rise to be.  
a. Less  
b. Greater  
c. More nearly flat  
d. More limited or moderate

23. If a commodity futures trader takes a “short” position this means  
a. they think the price will go up  
b. they are short of money, so they borrow part of what they need  
c. they sell contracts  
d. the market is unstable so they decide to wait before buying or selling

24. A put option  
a. Is an insurance policy against high prices  
b. Is the right but not the obligation to buy something at a fixed price
c. Is an insurance policy against low prices
d. Can be used by an egg farmer to hedge his feed costs

25. The broker demands margin money from hedgers because
   a. The offsetting cash position doesn’t give the broker any security
   b. Hedging is so risky
   c. Most people trading futures lose money
   d. They need the money so they can trade on their own account

26. Monopsony power
   a. occurs when there are only a few buyers for a product
   b. is a problem for farmers sometimes because their input markets are so concentrated
   c. is typical in most food product industries
   d. is a high priority of our antitrust laws

27. The price of wheat rose by 10 cents per bushel. Which of the following would be a reason?
   a. The crop in Australia was injured by drought
   b. The weather in the wheat belt is perfect
   c. The Japanese economy is in trouble and they will be buying less
   d. A dock workers strike has closed the export terminals

28. The structure - conduct - performance model
   a. Shows us how a monopolist will often behave in a manner that hurts society
   b. Explains why oligopolies can so easily get into price wars
   c. Underlies much of our regulation of market power
   d. All of the above

29. Regulations of market power concentrate on market structure
   a. Because it is easier to observe than other market characteristics
   b. Because market conduct is hard to understand
   c. Because market structure is the most important part of industrial organization
   d. Because market performance has too many attributes to measure

30. Oreos are a classic differentiated food product. As such Nabisco (the manufacturer) must
   a. Worry constantly about production efficiency because competition is mainly based on price.
   b. Must worry about Oreo’s image, because this is an essential to their success
   c. Must buy their raw materials at the lowest possible price
   d. Must constantly monitor the prices of competing products to see that no one steals their business

AGRICULTURAL BUSINESS MANAGEMENT 102
FALL 2003

Final Exam

1. You are an oat farmer near Minot, ND. You want to hedge 5,000 bushels of the 2004 crop using the Chicago Board of Trade. An oat contract is 5,000 bushels. The expected basis for oats in North Dakota during July–September is -$0.15 /bu. The July 2004 contract is trading at $1.50 per bu. and the September 2004 contract is trading at $1.46/bu. There is no August contract. You expect to sell your oats on August 15.

   a. What is the expected price for oats? Please show your work.
b. To hedge your oats do you **buy** or **sell** one contract today? __________

On August 15 when it is time to sell your oats, and you want to get out of your contract, do you buy or sell? __________

c. It is now August 15. The price of oats in Minot is $1.10/bu and the price of the September contract on the Chicago Board of Trade is $1.20/bu. What is your net price for your oats? Please show your work.

2. The following equations describe a two region problem

\[ D_1 = 12 - P_1 \]
\[ D_2 = 16 - P_2 \]
\[ S_1 = 3 + 2P_1 \]
\[ S_2 = -4 + P_2 \]

What is the equilibrium price and quantity in the two regions in the absence of trade? Please show your work (15 points)

P1 = _______  Q1= ___________  P2 = _________  Q2 = ___________

What are the equilibrium prices and quantities if trade can occur and the price of transportation is 2? How much is traded? Please show your work

P1 = _______  D1= ___________  S1 = __________

P2 = ___________  D2 = ____________  S2= ____________

Quantity of Trade _____________ Surplus is shipped from region _____ to region _____

3. You are a monopolist with the supply (Marginal Cost) curve Q = -4 + P. The Demand Curve you face is Q = 24 - 2 P. On the grid below graph the problem. (15 points)

The Quantity you will sell is _____

The Price you will charge is ______

4. The farmers in the Bleeding Ulcer Valley grow kumquats. The price of kumquats in the market in the town of Bleeding Ulcer is $20/bushel. It costs $0.10/mile to transport a bushel of kumquats to market. Kumquats do especially well when the farmer's fertilizer them with kangaroo manure. There is a kangaroo farm in Bleeding Ulcer that will give the farmers kangaroo manure for free if they will haul it away. It costs $1.00 per mile to haul a ton of kangaroo manure. One ton of kangaroo manure will fertilize enough land to grow 20 bushels of kumquats. Please fill in the following table for farmers living the indicated distances from Bleeding Ulcer.
distance from Bleeding Ulcer | Net kumquat price/bushel | Net cost of kangaroo manure/ton | Net cost of kangaroo manure/bushel kumquats | Net profit from kumquats per bushel after paying for manure
---|---|---|---|---
10 miles | | | | |
20 miles | | | | |
30 miles | | | | |
40 miles | | | | |
50 miles | | | | |

5. On the grid below, please graph the following problem.

The Supply Curve is \( Q = 4 + P \)

The Demand Curve is \( Q = 10 - 2P \)

Please calculate the own price elasticity of demand and the own price flexibility of demand. Show your work. You may leave the problem as an indicated multiplication.

The *multiple choice questions are 3 points each.*

6. We care about market performance, yet the only two cases where we regulate performance directly are natural monopolies and production agriculture. Which of the following is *not* a reason for this peculiar behavior?
   a. In these two instances, there is a good reason to maintain the current market structure, but the accompanying performance would be unsatisfactory without intervention
   b. Ordinarily market performance is regulated indirectly through market structure because structure is easier to observe
   c. Because market performance is so complex in most instances our regulators are stymied.
   d. Because by changing market structure, we can often get a long-term solution to market performance problems

7. The concept of a price mountain
   a. Applies to something a farmer sells
   b. Makes farmland far from the market less valuable
   c. Is important to help understand why some products are grown near the market and others farther away
   d. All of the above

8. When a speculator buys a coffee futures contract, he
   a. Thinks the price will rise
   b. Thinks the price will fall
   c. Has a coffee crop that he needs to sell
   d. Needs coffee for his business

9. Country elevators can store the grain of different farmers together:
   a. Because the farmers have no alternatives
   b. Because grain is a commodity product and is all the same
   c. Because the grading system allows them to identify grain of comparable quality
   d. Because grain is a differentiated product and things will be easy to work out later

10. Futures contract specifications do *not* include
a. the amount sold/to be delivered  
b. grade/quality to be delivered  
c. date of delivery  
d. other commodities which may be substituted  

11. You can sell a soybean futures contract even if you don’t own any soybeans for what reason?  
a. You can always default since you only put up a portion of the money. 
b. You can buy your contract back before the delivery date.  
c. You think the price will go up, so you will make money.  
d. You own peanuts, which may be substituted.  

12. The market allocates potatoes to the different uses (fresh market, chips, frozen french fries)  
a. By each person in the market making the decision that makes the most sense to him/her  
b. By the National Potato Council coordinating movements in order to maximize grower revenue  
c. By extensive contracts by the grocery stores for potato products that reach all the way back to the farm level  
d. By sending all the high quality potatoes to the fresh market and processing the potatoes that aren’t good enough to sell to the fresh market  

13. Market conduct includes  
a. How many sellers there are in a market  
b. A firm’s policies toward its product market  
c. How well an industry does what society expects of it  
d. How easy it is to enter a market  

14. Concentration ratios such as CR4 measure.  
a. average profits over the last 4 years  
b. output divided by input  
c. percent of total sales made by the four largest companies  
d. the speed at which prices are transmitted from the farm level to the retail level.  

15. The structure - conduct - performance model  
a. Is used to understand why farm prices are more variable than retail prices  
b. Shows how an industry's performance can be improved indirectly by regulating market structure  
c. Doesn’t really help us much to understand industries producing differentiated products  
d. Is a recently developed concept to help us understand industry behavior  

16. The recent hepatitis problem with green onions in Pittsburgh have greatly increased inspections of food products from Mexico. The additional cost of inspecting produce for food safety should  
a. Make green onion prices in Mexico fall  
b. Cause food retailers to absorb the extra expense  
c. Make consumer produce prices fall  
d. Not affect the market equilibrium  

17. Price flexibility is  
a. Important because farm quantity is usually determined before the price is known  
b. A measure of price variability as quantity changes  
c. The reciprocal of the price elasticity  
d. All of the above  

18. The demand elasticity for fluid milk is -.25 and for fruit juice it is -.55. This means that with an equal percentage increase in price, purchases of fruit juice will _______ than those of milk.  
a. decline proportionately more  
b. decline proportionately less  
c. increase proportionately more  
d. increase proportionately less  

19. With the issues relating to terrorism, some expect world trade to decrease. If this happens, what will happen to flower markets in the U.S., where imported flowers are an important portion of total supply?
20. The slope of a demand curve shows how the quantity demanded changes as ________
   a. incomes change
   b. prices change
   c. tastes and preferences change
   d. all the above

21. The supply curve for tomatoes
   a. Slopes upward because higher prices induce farmers to produce more
   b. Is a reflection of the cost structure of tomato farmers
   c. Is more elastic if the time period is longer
   d. All of the above

22. Under the Law of One Price if the price of apples rise, the price of apple sauce should
   a. Rise
   b. Remain unchanged
   c. Fall
   d. There isn’t enough information to say

23. The state of Pennsylvania has
   a. A single big market area for food retailing
   b. Three or four dominant grocery store chains
   c. At least three distinct market areas for food retailing
   d. Not very much competition in food retailing

24. A firm producing a commodity product
   a. can increase the product price easily
   b. is protected from competition by its brand identity
   c. has a strong loyalty by its consumers
   d. none of the above

25. Different modes of transportation can all exist together because
   a. They each have a competitive advantage for some type of product movement but not for others
   b. The high loading and unloading costs can offset a low per mile costs and make short distance movements uneconomic for some modes
   c. The importance of speedy delivery varies with the product being hauled
   d. All of the above

26. Hershey’s Chocolate wishes to lock in its profits by hedging the price of its inputs, in particular sugar and cocoa. They should
   a. Buy a sugar futures contract and sell a cocoa futures contract
   b. Sell a sugar futures contract and buy a cocoa futures contract
   c. Buy a sugar futures contract and buy a cocoa futures contract
   d. Sell a sugar futures contract and sell a cocoa futures contract

27. A Pennsylvania corn farmer who is considering storing corn from the harvest period until April in an on-farm bin
   a. Has to worry about the loss in value due to deterioration of the quality of the corn
   b. Needs to worry about having the price of corn rise while he has it in the bin
   c. If he already owns the grain bin, needs to consider the ownership costs of this bin
   d. Is hedging because he is saving money over a commercial storage facility

28. The Sherman Antitrust Act is an example of regulations that
   a. Try to regulate market conduct because market structure is too hard to observe
   b. Try to regulate market structure because they lawmakers believed in the structure-conduct-
performance model  
c. Is an historic oddity that has no relevance in the information age  
d. Try to directly regulate performance because that is what we really care about

29. A local pizza parlor like HiWay Pizza can effectively compete with Pizza Hut  
a. Because their food distributor can give them prices for their ingredients much lower than Pizza Hut  
b. Because they can differentiate themselves from Pizza Hut and need not charge the same prices  
c. Because they can pay their employees less than the nearby Pizza Hut  
d. Because they can cut corners on management and undercut Pizza Hut

30. Agricultural lending is different than regular commercial lending  
a. Because the economic factors affecting most dairy farms are the same and so a lot of your loans can go bad together  
b. The biology of agriculture requires a long-run focus  
c. The high fixed cost of farming means that farms can continue to lose money for a long period before they go broke  
d. All of the above

AGRICULTURAL BUSINESS MANAGEMENT 102  
Spring 2004  
Name: ______________________

Final Exam

1. You are the purchasing manager for Pillsbury’s Flour Division. You use vast amounts of wheat to make flour and you are in charge of hedging. For simplicity, assume that you want to buy 5,000 bushels of the 2004 crop using the Chicago Board of Trade wheat contract. One contract is 5,000 bushels. The expected basis for your plant in Buffalo during July-September is $0.15/bu. The July 2004 contract is trading at $3.97 per bu. and the September 2004 contract is trading at $4.02/bu. There is no August contract. You expect to buy your wheat on September 15.

a. What is the expected price for wheat? Please show your work.

b. To hedge your wheat do you buy or sell one contract today? __________

On September 15 when it is time to sell your wheat, and you want to get out of your contract, do you buy or sell? __________

c. It is now September 15. The price of wheat in Buffalo is $5.05/bu and the price of the September contract on the Chicago Board of Trade is $4.85/bu. What is your net price for your wheat? Please show your work.
2. The following equations describe a two region problem

\[ D_1 = 10 - P_1 \quad S_1 = 4 + P_1 \]
\[ D_2 = 14 - P_2 \quad S_2 = -8 + P_2 \]

What is the equilibrium price and quantity in the two regions in the absence of trade? Please show your work (15 points)

\[ P_1 = \quad Q_1 = \quad P_2 = \quad Q_2 = \]

What are the equilibrium prices and quantities if trade can occur and the price of transportation is 2? How much is traded? Please show your work

\[ P_1 = \quad D_1 = \quad S_1 = \quad P_2 = \quad D_2 = \quad S_2 = \]

Quantity of Trade \__________ Surplus is shipped from region _____ to region _____

3. You are a monopsonist facing the supply curve \( Q = -2 + P \). Your Marginal Value Product (Demand) curve is \( Q = 11 - P \). On the grid below graph the problem. (15 points)

The Quantity you will buy is _____

The Price you will pay is _______

4. You are a corn and soybean producer living near Podunk Center, Iowa. You are planting soybeans this year. The price for the November CBOT Futures contract is $7.60/bushel. The soybean basis is -$0.10. This is one of the best prices you have seen in years, but you think it may go higher. However, to keep from losing such a potentially profitable year if the price falls, you decide to use Soybean Options. You plan to sell your beans November 15. The table below lists a few prices

<table>
<thead>
<tr>
<th>Strike Price</th>
<th>Puts</th>
<th>Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>12 cents/bu</td>
<td>173 cents/bu</td>
</tr>
<tr>
<td>620</td>
<td>16 cents/bu</td>
<td>157 cents/bu</td>
</tr>
<tr>
<td>640</td>
<td>21 cents/bu</td>
<td>142 cents/bu</td>
</tr>
<tr>
<td>660</td>
<td>26 cents/bu</td>
<td>128 cents/bu</td>
</tr>
<tr>
<td>680</td>
<td>33 cents/bu</td>
<td>115 cents/bu</td>
</tr>
<tr>
<td>700</td>
<td>41 cents/bu</td>
<td>103 cents/bu</td>
</tr>
</tbody>
</table>

Choose any option you like. I want to Buy ____ Sell ___ a put ____ call ___ with a strike price of ____

If commissions are 1 cent per bushel, what is the minimum floor price you expect? Please show your work.
The price of the November soybean contract on November 15, 2004 is $5.50 per bushel. The local price is $5.35 per bushel. What is your net price, including any profits or losses from your option transaction? Please show your work.

5 On the grid below, please graph the following problem.

The Supply Curve is \( Q = -4 + 2P \)

The Demand Curve is \( Q = 8 - P \)

Please calculate the own price elasticity of demand and the own price flexibility of demand at the equilibrium price and quantity. Show your work. You may leave the problem as an indicated multiplication.

The multiple choice questions are 3 points each. Please indicate your answer clearly

6. Pricing efficiency in the marketing system
   a. produces an output with the least input cost
   b. transmits consumer preferences to the farm level effectively
   c. uses economies of scale
   d. has horizontal integration

7. The growth in food marketing costs is a result of
   a. the demand for convenience foods
   b. the demand for food away-from-home
   c. the demand for more retailing services
   d. all the above

8. In the price of bread, the transportation, milling, and storage functions get a very low return because
   a. They provide a generic service and compete strongly on price
   b. The baking industry controls everything and squeezes the profits out of their suppliers
   c. These functions aren’t very important and so there is no need to overpay
   d. All of the above

9. The structure - conduct - performance model
   a. Shows us how a monopolist will often behave in a manner that hurts society
   b. Explains why oligopolies can so easily get into price wars
   c. Underlies much of our regulation of market power
   d. All of the above

10. The farmer gets such a small portion of the price of a loaf of bread because
    a. The baker keeps so much that there isn’t much left for the farmer
    b. The economic efficiency on farms is such that all the wheat we need is supplied at a low price
    c. The consumer refuses to pay more, which doesn’t leave enough for the farmer
    d. The multinational food firms like Cargill are trying to keep the farmers down

11. A producer of a commodity product
    a. must spend a lot on advertising in order to win its customers from the competition
    b. must try to economize wherever possible because competition is on the basis of price
    c. can depend on consumer loyalty to force the supermarkets to handle their products
    d. are protected from entry by competitors by the unique characteristics of its product

12. An oligopoly is
    a. a market with a few buyers and many sellers
    b. a market with a few sellers and many buyers
    c. a market with a lot of small sellers of differentiated products
    d. a market with one buyer and one seller

13. Market conduct includes
a. How many sellers there are in a market
b. A firm’s policies toward its product market
c. How well an industry does what society expects of it
d. How easy it is to enter a market

14. Which of the following is **not** an element of market performance?
   a. Ease of entry and exit into an industry
   b. Whether an industry produces negative externalities
   c. How much money an industry spends on advertising
   d. How much an industry uses prices to coordinate actions by industry members

15. We regulate market structure even though we care about market performance
   a. Because by changing market structure we can often solve the problem for good
   b. Because market conduct is hard to understand
   c. Because market structure is the more important than market performance
   d. Because politics make regulating market performance directly too controversial

16. The vegetable marketing cooperatives in Pennsylvania
   a. Allow individual farmers to specialize more than they could otherwise
   b. Allow farmers to concentrate on their farming rather than being distracted by the time and management problems of direct marketing
   c. Require the farmer-members to sacrifice some of their autonomy to ensure the cooperative succeeds
   d. All of the above

17. When choosing between modes of transport
   a. The size of the shipment is important
   b. The distance to be traveled is important
   c. The ease of loading and unloading is important
   d. All of the above

18. Pennsylvania and New York together produce more milk than Wisconsin. Yet Wisconsin produces much more cheese than these two states combined and much less fluid milk. Which of the following is a reason for this specialization?
   a. Wisconsin milk makes better cheese because they have higher protein levels.
   b. Wisconsin consumers eat so much more cheese than the rest of the country that the greater cheese production is driven by local demand.
   c. Fluid milk is more expensive to haul and Northeastern milk is more valuable in the fluid market, given all the consumers in the east
   d. Because of Wisconsin’s cold weather, many Wisconsin farmers don’t have refrigeration, so in warmer weather the milk isn’t suitable for the fluid market.

19. When making the decision to store corn until May or sell it now, which does a person **not** need to know?
   a. The cost per month to store
   b. The expected price in May
   c. The price now
   d. The size of this year’s corn crop

20. Starbucks is worried about the price of coffee beans going up and forcing them to raise their already high prices so they wish to lock in its profits by hedging the price of coffee beans (their input). The company should
   a. Buy a coffee futures contract
   b. Sell a coffee futures contract
   c. Buy a coffee put
   d. Sell a coffee call

21. Monopsony
   a. Allows the seller to charge his customers whatever price he chooses
   b. Is a common problem for farmers because their input markets are so concentrated
   c. Can be a problem for farmers because high transportation costs can limit their market to a single buyer
   d. Is a high priority of our antitrust laws because it is such a common problem
22. Most corn farmers watch the Chicago Board of Trade corn prices
   a. Because their local prices are very hard to get
   b. Because they want to see how Cargill and the big grain merchants are manipulating the market
   c. Because all corn markets are linked together by the Law of One Price and so their local price will follow the Chicago price
   d. Because they are long in the futures market and are monitoring their position

23. Which of the following is not an issue for a vegetable grower who sells his production directly to consumers?
   a. He must have a plan for the produce that he can’t sell
   b. He must figure out what to do with the low quality production
   c. He must have a contract to ensure a market
   d. He must grow a variety of products in order to manage the growing season

24. The own price elasticity of supply of milk is
   a. Elastic in the short run
   b. Affected by the biological limitations on changing milk production
   c. Dependent on consumer income
   d. Constant regardless of the time period considered

25. A futures contract specifies all but the what of the following
   a. Delivery date
   b. Price
   c. Quantity
   d. Delivery location

26. A call option
   a. Can be used by an egg producer to control his feed costs
   b. Is the right but not the obligation to sell something at a fixed price
   c. Is an insurance policy against low prices
   d. Can be used by a cattle producer to hedge his output price

27. Interregional trade
   a. Spreads the effect of a drought in one region across the whole country
   b. Gives consumers in all regions a wider variety of food than if this trade did not occur
   c. Allows farmers in a region to specialize on a greater scale than local consumption will support
   d. All of the above

28. Ukrainian agriculture is struggling
   a. Because the country has no tradition of free enterprise
   b. Because the structure of agriculture does not reward individual initiative
   c. Because Ukrainian farmers are poorly educated
   d. More than one, but not all of the above

29. The concept of a price valley
   a. Applies to something a farmer sells
   b. Makes some farm inputs more expensive far from the market
   c. Makes the price of slaughter cattle more expensive in Pennsylvania than in Kansas
   d. All of the above

30. Derived farm-level demand is
   a. More elastic than retail demand
   b. Dependent on the costs of marketing services
   c. Independent of labor costs in food retailing
   d. Not important because farmers are price takers
Final Exam

1. (15 points) You are an oat Producer near Albert Lea, Minnesota and are worried about the price of oats falling. You are committed to produce at least 5,000 bushels next spring. The price on the Chicago Board of Trade of the September 2005 Oat contract is $1.58/bu. The expected basis for Minnesota is $0.10 (yes, minus 10 cents).

   a. What is your expected price for oats in Albert Lea? Please show your work.

   b. To hedge your oats do you buy or sell one contract today? __________

      On September 15 when it is time to sell your oats, and you want to get out of your contract, do you buy or sell? __________

   c. It is now September 15. The price of oats in Albert Lea is $1.75/bu and the price of the September contract on the Chicago Board of Trade is $1.90/bu. What is your net price for your oats? Please show your work.

2. (15 points) The following equations describe a two region problem

\[ D_1 = 14 - P_1 \]
\[ S_1 = -6 + P_1 \]
\[ D_2 = 11 - P_2 \]
\[ S_2 = 3 + P_2 \]

What is the equilibrium price and quantity in the two regions in the absence of trade? Please show your work

\[ P_1 = \quad \quad \quad \quad Q_1 = \quad \quad \quad \quad P_2 = \quad \quad \quad \quad Q_2 = \quad \quad \quad \quad \]

What are the equilibrium prices and quantities if trade can occur and the price of transportation is 2? How much is traded? Please show your work

\[ P_1 = \quad \quad \quad \quad D_1 = \quad \quad \quad \quad S_1 = \quad \quad \quad \quad \]
\[ P_2 = \quad \quad \quad \quad D_2 = \quad \quad \quad \quad S_2 = \quad \quad \quad \quad \]

Quantity of Trade ____________ Surplus is shipped from region _____ to region _____
3. (15 points) You are a monopolist facing the demand curve $Q = 32 - 2P$. The Supply (Marginal Cost) Curve is $Q = 4 + P$. Fill in the table below:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Demand Price</th>
<th>Marginal Revenue</th>
<th>Supply Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On the grid below please graph the problem.

The Quantity you will sell is _____

The Price you will charge is _______

4. (15 points) You are a farmer producing cranberries near Medford, NJ. Your cousin Vinnie also grows cranberries near Salem, NJ. Ocean Spray, the cooperative you both deal with, has a facility near Lakehurst New Jersey. It is 50 miles from Lakehurst to Medford and 100 miles from Lakehurst to Salem. The price of cranberries in Lakehurst is $30 per barrel. The hauling expense per barrel is $0.04 per mile. The grower pays for hauling.

A. What is the net price you will receive for cranberries per barrel? _________

How about Vinnie? ________ Please show your work.

B. Growing cranberries requires a lot of phosphorus. Both you and Vinnie buy phosphorus from Lakehurst for $0.20 per pound. The transport price is $0.0002 per mile. The farmer pays for transportation. What is your net price for one pound of Phosphorus? _________

How about Vinnie’s net price? __________

Please show your work.

C. One barrel of cranberries requires 10 pounds of phosphorus to grow them. What is your net returns per barrel from your cranberries, after subtracting the cost of phosphorus? _______

How about Vinnie’s net returns? __________

Please show your work.
5. (15 points) On the grid below, please graph the following problem.

The Supply Curve is \( Q = 3 + 0.5P \)

The Demand Curve is \( Q = 18 - 2P \)

Please calculate the own price elasticity of demand and the own price flexibility of demand at the equilibrium price and quantity. Show your work. You may leave the problem as an indicated multiplication.

The multiple choice questions are 3 points each. Please indicate your answer clearly.

6. An efficient price system
   a. allocates a product to those who are willing to pay for it
   b. transmits consumer preferences to the farm level effectively
   c. helps give price signals to processors about what they should produce
   d. all of the above

7. The marketing functions can
   a. easily be eliminated
   b. can only occur once the product leaves the farm
   c. help keep farm prices low
   d. help satisfy the consumer’s wishes

8. Which of these does not shift the supply curve for milk?
   a. The price of dairy feed falls
   b. A scientific breakthrough increases milk per cow
   c. Consumer income rises
   d. all shift supply

9. If the price elasticity of demand for cheese is -.25 then the percent change in quantity demanded will be ______ than the percent change in price.
   a. greater
   b. smaller
   c. the same as
   d. can’t say from this data

10. Efficiency is an important aspect of market performance. The Meat Packers’ Consent Decree restricts the meat packers from various vertical relationships that hurt economic efficiency. This is because
    a. Performance is multifaceted and the gains elsewhere made the efficiency loss worth it
    b. Our regulatory agencies are famous for doing things that don’t make sense
    c. The meat packing industry was so efficient anyway that no one cared
    d. The decree was imposed during a period of runaway regulation.

11. Which of the following contributes to making markets more competitive?
    a. easy entry for new firms
    b. product differentiation
    c. strong consumer brand preferences
    d. all the above

12. Regulations of market power concentrate on market structure
    a. Because it is easier to observe than other market characteristics
    b. Because market conduct is hard to understand
    c. Because market structure is the most important part of industrial organization
    d. Because market performance has too many attributes to measure

13. Under the Law of One Price if the price of cheese falls, the price of milk should
    a. Rise
    b. Remain unchanged
    c. Fall
d. There isn’t enough information to say

14. A Pennsylvania farmer who is considering storing corn from the harvest period until April
   a. Has a cost advantage over commercial storage facilities
   b. Need not consider hedging because he already has the corn in hand
   c. Has an additional few cents to work with because the basis is larger in April than in the Fall
   d. Only has to worry about the loss in value due to deterioration of the quality of the corn

15. Dairy farmers receive a weighted average or pooled price because:
   a. It is the most efficient method of pricing milk
   b. Otherwise no one would want to sell to the low-priced cheese market
   c. Milk used for drinking is of higher quality
   d. Consumer expectations require it

16. A New Age Cooperative differs from traditional cooperatives because
   a. It is run in a more business-like fashion
   b. Closed membership gives it more control over supply
   c. It tries to get involved in value added while traditional cooperatives do not
   d. It does not require as much investment from the members.

17. Pizza shops are good examples of monopolistic competition because
   a. There is one seller and a lot of buyers
   b. The seller has a lot of market power
   c. There isn’t very much competition so the pizza shop can act like a monopolist
   d. There are a lot of sellers but they sell a differentiated product

18. Market power is
   a. Something consumers have because “the consumer is always right”
   b. A necessary evil in industry so we don’t worry about controlling it
   c. Commonly faced by farmers both when they are buying and when they are selling
   d. Provided by the government to farmers through the price support programs

19. The concept of a price valley
   a. Applies to something a farmer sells
   b. Makes some farm inputs more expensive far from the market
   c. Makes the price of slaughter cattle more expensive in Pennsylvania than in Kansas
   d. All of the above

20. Different modes of transportation can all exist together because
   a. They each have a competitive advantage for some type of product movement but not for others
   b. The high loading and unloading costs can offset a low per mile costs for short distance movements under some modes
   c. The importance of speedy delivery varies with the product being hauled
   d. All of the above

21. Speculators who sell corn futures contracts
   a. Expect prices will rise
   b. Expect prices will fall
   c. Are not worried about delivery because they have lots of storage space available
   d. Have inside information about a smaller crop than usual

22. The basis for cattle in Colorado is negative. This means
   a. That cattle commonly move from eastern markets to Colorado
   b. The markets in Colorado have a surplus of cattle
   c. Cattle markets in Colorado are so disorganized that cattle feeders are penalized
   d. The price of corn in Colorado is exceptionally high

23. A put option
   a. Is an insurance policy against high prices
b. Is the right but not the obligation to buy something at a fixed price

c. Is an insurance policy against low prices

d. Can be used by an egg farmer to hedge his feed costs

24. A hog farmer wishes to lock in its profits by hedging the price of slaughter hogs (his output) and corn (his input). He should

a. Buy a hog futures contract and sell a corn futures contract

b. Sell a hog futures contract and buy a corn futures contract

c. Buy a hog futures contract and buy a corn futures contract

d. Sell a hog futures contract and sell a corn futures contract

25. Vertical coordination improves as

a. More contracts between farmers and processors are used

b. More cattle are bought in private transactions rather than at public markets

c. Grades and standards are used less

d. Conglomerate mergers become more common

26. Barges are used only for long distance corn movements despite having a very low per-mile costs because

a. The costs of loading, unloading, and other costs are high enough to make other modes cheaper for short distances.

b. Corn is too perishable to move in such a slow manner.

c. Nearby customers don’t need such a large sized load.

d. There aren’t any customers on the northern half of the Mississippi River.

27. Price leadership is used

a. When producers form a cartel

b. When the government sets up a floor price to prevent price wars

c. When members of an oligopoly use an informal agreement to change prices

d. When a monopsonist sets the price so that the sellers know what is going on

28. Cartels are

a. when buyers conspire to fix prices

b. when sellers are trapped by the kinked demand curve

c. legal in the United States

d. when members of an industry conspire to act like monopolists

29. Because of its biological nature, ag output varies in quality. This creates a need for

a. transportation

b. assembly

c. sorting and grading

d. risk insurance

30. When the price of hauling milk from the farm to the processor goes up

a. farm milk prices should fall

b. consumer milk prices should fall

c. processors will absorb the extra expense

d. all of the above