Part I: Multiple Choice. Circle the best answer (4 points each).

1. Reasons why you would replace machinery would include:
   a. it is too small.
   b. it is worn out and not dependable.
   c. it is obsolete.
   d. costs such as repairs for the present machine are increasing.
   e. all the above are reasons.

2. Methods for acquiring machinery would include:
   a. purchase or buy
   b. lease
   c. joint ownership
   d. custom hire
   e. all of the above are methods

3. Budgets are a common tool used in analyzing farm alternatives or decisions. Examples of budgets could include:
   a. a partial budget.
   b. a whole farm budget.
   c. an crop budget such as soybeans.
   d. a livestock budget such as cattle feeding.
   e. All of the above are types of budgets.

4. A complementary enterprise is:
   a. where if you increase the production of one enterprise, you can also increase the production of another enterprise.
   b. where if you increase the production of one enterprise, you will need to reduce the production of another enterprise.
   c. where if you increase the production of one enterprise, you will not impact the production of another enterprise.
   d. None of the above represents a complimentary enterprise.

5. In a partial farm budget:
   a. you only evaluate the costs and return for the items that are changing.
   b. you evaluate all costs and all revenues for the entire operation.
   c. you only evaluate the fixed costs for the operation.
   d. you only compare the return for the items that are changing.
   e. you evaluate the revenue for the entire operation.
The following seven questions are based on the attached corn budget.

6. Attached is an example budget for corn production. What is the amount of nitrogen (pounds) applied per acre?
   a. 55 pounds
   b. 45 pounds
   c. 150 pounds
   d. Can’t determine with information provided.
   E. None of the above.

7. Given the attached corn budget, if you had larger machinery and you used 1.5 hours rather than 2.6 hours of labor per acre, what would your labor cost per acre on the budget be?
   a. $24.70
   b. $14.25
   c. Would not change because it is a fixed cost.
   d. $22.70
   e. None of the above.

8. Given the attached corn budget, if the price of corn is $2.25 per bushel, what is the gross margin for an acre of corn? (Assume all costs are as provided in the budget.)
   a. $181.47
   b. $138.64
   c. $126.66
   d. $134.25
   e. None of the above.

9. Given the attached corn budget, what is the breakeven price per bushel to cover all costs? (Assume all costs are as provided in the budget.)
   a. $1.41
   b. $2.76
   c. $1.36
   d. $2.29
   e. None of the above.

10. For the attached corn budget, and if the price of corn is $2.20, what is the breakeven price for soybeans where the gross margin of corn is equal to the gross margin of soybeans? The variable costs for soybeans is $120.00 per acre and the yield is 45 bushels per acre.
    a. $9.35 per acre
    b. $5.31 per acre
    c. $6.52 per acre
    d. Can’t determine with the information provided.
b. $1.41 per bushel

c. $1.36 per bushel
d. $2.29 per bushel
e. None of the above.

6. $6.71
c. $6.21
d. $6.50
e. None of the above

The following six questions are based on the attached “Finishing Yearling Steers” budget.

13. Given the attached “Finishing Yearling Steers” budget, what is the income (gross revenue) per animal placed for market steers if the market steer price is $90.00 per hundred pounds. Productivity is as reflected in the budget.
   a. $1,125.00
   b. $1,113.75
c. $1,012.50
d. $279.65
e. None of the above

14. For the “Finishing Yearling Steer” budget, the feeder price represents:
    a. money that was borrowed
    b. money that was borrowed and tied up for the year.
c. money that was not borrowed.
d. none of the above

15. How much supplement and minerals (pounds) is fed per steer placed?
    a. 120 pounds
    b. 3528 pounds
c. .35 tons
d. None of the above.

16. The veterinary and health cost of $8.00 per animal as reflected on the “Finishing Yearling Steer” budget is an example of:
    a. using opportunity cost to place a value on resources
c. non-cash costs
d. fixed costs
e. None of the above.
21. The economic point for production or input use is where:
   a. the production possibility curve is tangent to the isocost
   b. the isoquant is tangent to the isorevenue
   c. the marginal revenue is equal to the marginal value product
   d. the marginal cost is equal to marginal input cost
   e. All of the above.
   f. None of the above.

22. According to the presentation by Dr. William Edwards the type of crop insurance taken out for corn in Iowa in 2004 was:
   a. 2% used yield insurance
   b. 69% used revenue insurance
   c. 90% used yield insurance
   d. 25% used revenue insurance
   e. 50% did not sure the crop

23. According to the presentation by Dr. William Edwards the most popular level of guarantee for corn and soybeans was:
   a. 50%
   b. 65%
   c. 75%
   d. 80%
   e. 85%

24. Multiple peril crop insurance (MPCI):
   a. protects producers from bad seed spacing and depth due to poor planter settings
   b. protects producer from crop burning from over application of nitrogen fertilizer
   c. protects the farmers from losses caused by weather, pests, floods, and other natural causes
   d. protects producers from crops lost in the field due to poor combine settings
   e. protects against all of the above

25. You have constructed a building for use for cattle shelter. You calculate that you will use it for 15 years. The cost was $40,000 and you feel the salvage value will be $10,000. The interest rate on the loan is 7 percent. Given this, what is the level of annual depreciation the first year you have the building?
   a. $4,000.00
   b. $4,500.00
   c. $2,666.67
   d. $2,000.00
   e. None of the above.

Part II. Bonus (2 points)

What is the name of the person that sits next to you (closest to you) in this class?
Supporting Information

Exam II

Econ 330
Fall 2005
# Corn following Soybeans

<table>
<thead>
<tr>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15.85</td>
<td>$11.98</td>
</tr>
<tr>
<td>Units</td>
<td></td>
</tr>
<tr>
<td>26,000</td>
<td>$34.80</td>
</tr>
<tr>
<td>55</td>
<td>18.15</td>
</tr>
<tr>
<td>45</td>
<td>8.10</td>
</tr>
<tr>
<td>10</td>
<td>6.00</td>
</tr>
<tr>
<td>32.00</td>
<td></td>
</tr>
<tr>
<td>7.00</td>
<td></td>
</tr>
<tr>
<td>7.00</td>
<td></td>
</tr>
<tr>
<td>6.98</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$156.03</td>
</tr>
</tbody>
</table>

## Harvest Machinery

<table>
<thead>
<tr>
<th>Combine</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12.00</td>
</tr>
<tr>
<td>Haul</td>
</tr>
<tr>
<td>3.00</td>
</tr>
<tr>
<td>Dr. (LP Gas @ $1.15/gal)</td>
</tr>
<tr>
<td>6.00</td>
</tr>
<tr>
<td>Handle</td>
</tr>
<tr>
<td>1.70</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>$22.70</td>
</tr>
</tbody>
</table>

## Labor

- 2.6 hours @ $9.50
- $24.70

## Land

- Cash rent equivalent
- $140.00

## Total fixed, variable

<table>
<thead>
<tr>
<th>Per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>$203.25</td>
</tr>
<tr>
<td>Per bushel</td>
</tr>
</tbody>
</table>

## Total cost per acre

- $210.84

---

Appy N, tandem disk, field cultivate, plant, cultivate, and spray. See the estimated Machinery Costs table.
# Finishing Yearling Steers - One Head

## INCOME
- Sales income (1,250 lbs @ $________)  
<table>
<thead>
<tr>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>$______</td>
<td>$______</td>
</tr>
</tbody>
</table>
- Minus death loss (- 1% of sales)  
  | Total | Cash |
  |-$______ | -$______ |

## GROSS INCOME
<table>
<thead>
<tr>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>$______</td>
<td>$______</td>
</tr>
</tbody>
</table>

## VARIABLE COSTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Rate</th>
<th>Duration</th>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder Cost @ $0.96 per lb</td>
<td>750 lbs</td>
<td>$720.00</td>
<td>160 days</td>
<td>20.52</td>
<td>20.52</td>
</tr>
<tr>
<td>Interest @ 6.5%</td>
<td>750 lbs</td>
<td>$720.00</td>
<td>160 days</td>
<td>20.52</td>
<td>20.52</td>
</tr>
<tr>
<td>Feed Costs</td>
<td>63 bu</td>
<td>$122.85</td>
<td>52 bu</td>
<td>$101.40</td>
<td>$0.00</td>
</tr>
<tr>
<td>Corn @ ______ per bushel</td>
<td>9.60</td>
<td>9.60</td>
<td>120 lbs</td>
<td>9.60</td>
<td>9.60</td>
</tr>
<tr>
<td>Supplement &amp; minerals @ $0.08 per lb</td>
<td>0.35 tons</td>
<td>18.20</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Alfalfa - brome hay @ $52.00 per ton</td>
<td>0.00</td>
<td>0.00</td>
<td>1.50 tons</td>
<td>27.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Corn Silage @ $18.00 per ton</td>
<td>0.00</td>
<td>0.00</td>
<td>1.50 tons</td>
<td>27.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Feed Costs</td>
<td></td>
<td></td>
<td></td>
<td>$150.65</td>
<td>$9.60</td>
</tr>
<tr>
<td>Veterinary and health</td>
<td></td>
<td></td>
<td></td>
<td>$8.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td></td>
<td></td>
<td></td>
<td>7.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Marketing and miscellaneous</td>
<td></td>
<td></td>
<td></td>
<td>16.00</td>
<td>16.00</td>
</tr>
<tr>
<td>Interest on feed &amp; other costs @ 6.5%</td>
<td>80 days</td>
<td>2.59</td>
<td>80 days</td>
<td>2.41</td>
<td>0.00</td>
</tr>
<tr>
<td>Labor @ $9.00 per hour</td>
<td>2 hours</td>
<td>18.00</td>
<td>2 hours</td>
<td>18.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

## TOTAL VARIABLE COSTS
- $942.75  
- $929.92

## INCOME OVER VARIABLE COSTS
<table>
<thead>
<tr>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>$______</td>
<td>$______</td>
</tr>
</tbody>
</table>

## FIXED COSTS
- Machinery, equipment, housing  
<table>
<thead>
<tr>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>$14.00</td>
<td>$1.40</td>
</tr>
</tbody>
</table>

## TOTAL ALL COSTS
- $956.75  
- $943.92

## INCOME OVER ALL COSTS
<table>
<thead>
<tr>
<th>Total</th>
<th>Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>$______</td>
<td>$______</td>
</tr>
</tbody>
</table>

**Break-even selling price for variable costs**

**Break-even selling price for all costs**