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   c. it is obsolete.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

The following five questions are based on the attached soybean budget.

3. Attached is an example budget for soybean production. What is the potash cost per pound (lb) used in the budget?
   a. $25.20
   b. $.13
   c. $6.00
   d. $.15
   e. None of the above.

4. Given the attached soybean budget, if you had smaller machinery and you used 3 hours rather than 2.5 hours of labor per acre, what would your labor coat on the budget be?
   a. $18.00
   b. $12.00
   c. Would not change because it is not a variable cost.
   d. $24.00
   e. None of the above.

5. Given the attached soybean budget, if the price of soybean is $5.75 per bushel, what is the level of profit for 200 acres of soybeans? (Assume all costs are as provided in the budget.)
   a. $17,592
   b. $32,158
   c. $5,298
   d. $1,888
   e. None of the above.
6. Given the attached soybean budget, what is the total cost of producing a bushel of soybeans? (Assume all costs are as provided in the budget.)
   a. $3.78 per bushel
   b. $2.18 per bushel
   c. $6.25 per bushel
   d. $5.96 per bushel
   e. None of the above.

7. For the attached soybean budget, how low can the price of soybeans go in the short run before you would decide not to grow soybeans and to let the land sit idle? (Assume you have no other use for the land. Your either produce soybeans or let it idle.)
   a. $3.77 or less per bushel
   b. $2.17 or less per bushel
   c. $6.24 or less per bushel
   d. $5.95 or less per bushel

8. 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 enterprise budget such as soybeans
   d. a cash flow budget
   e. All of the above are types of budgets

The following five questions are based on the attached “Finishing Feeder Pigs” budget.

9. Given the attached “Finishing Feeder Pigs” budget, what is the income (gross revenue) per animal placed on feed if the death loss is 3 percent and the market pig price is $.40 per pound?
   a. $96.00
   b. $103.00
   c. $97.00
   d. $100.00
   e. None of the above.

10. For the “Finishing Feeder Pigs” budget, the .5 hour of labor was:
    a. family labor which was unpaid
    b. for the wages paid to the neighbor paid by the hour
    c. for wages paid to your weekly employee
    d. All the above
11. For the “Finishing Feeder Pigs” budget, if the market pig is $.40 per pound, what is the income over variable costs (gross margin) per pig? All costs are as they are shown in the budget and the death loss is also 4 percent, as shown in the budget.
   a. $11.38  
   b. $44.25  
   c. -$1.66  
   d. $31.56

12. The labor cost of $8.00 per hour as reflected on the “Finishing Feeder Pig” budget is an example of:
   a. using opportunity cost to place a value on resources  
   b. non-farm costs  
   c. family living costs  
   d. fixed costs  
   e. None of the above.

13. If the feeder pig “Finishing Feeder Pigs” budget was on feed for 5 months rather than the 124 days as reflected in the budget, what would be the interest if the rate remains at 9%? (The purchase price remains at $37.00)
   a. $3.3  
   b. $1.13  
   c. $1.39  
   d. None of the above  
   e. Can’t determine with information provided.

14. The opportunity cost of a resource is
   a. its market value at the time of its use  
   b. its cost at the time of purchase  
   c. the return from using that input in its next best alternative use  
   d. the same as marginal cost

The next two questions are based on the following information.

You have 100 acres of land and you can produce corn and wheat. If you produce all corn, you produce 12,000 bushels and if you produce all wheat, you produce 6,000 bushels. Other combinations are shown in the table below.

<table>
<thead>
<tr>
<th>Combination Number</th>
<th>Corn Bushels</th>
<th>Wheat bushels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>6,000</td>
</tr>
<tr>
<td>2</td>
<td>4,000</td>
<td>5,000</td>
</tr>
<tr>
<td>3</td>
<td>8,000</td>
<td>3,000</td>
</tr>
<tr>
<td>4</td>
<td>12,000</td>
<td>0</td>
</tr>
</tbody>
</table>
15. If the price of corn is $2.00 per bushel and the price of wheat is $4.00, what combination would you select to maximize your profits?
   a. Number 1
   b. Number 2
   c. Number 3
   d. Number 4
   e. Number 2 and 3 provide same profit

16. If the price of wheat is $4.00, how high would the price of corn need to be before you would produce all corn? (Combination 4)
   a. At least $3.00 per bushel
   b. At least $2.50 per bushel
   c. At least $3.50 per bushel
   d. At least $4.00 per bushel
   e. Can’t determine with information provided.

The following information provides returns in $100 increments for three alternative uses of capital.

<table>
<thead>
<tr>
<th>Capital Invested</th>
<th>Fertilizer</th>
<th>Seed</th>
<th>Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$300</td>
<td>$300</td>
<td>$280</td>
</tr>
<tr>
<td>2</td>
<td>$400</td>
<td>$250</td>
<td>$200</td>
</tr>
<tr>
<td>3</td>
<td>$250</td>
<td>$200</td>
<td>$120</td>
</tr>
<tr>
<td>4</td>
<td>$90</td>
<td>$150</td>
<td>$70</td>
</tr>
<tr>
<td>5</td>
<td>$80</td>
<td>$120</td>
<td>$50</td>
</tr>
</tbody>
</table>

17. If you have $200 to invest where will you put your money?
   a. $100 in fertilizer and $100 in seed.
   b. $200 in seed.
   c. $200 in chemicals.
   d. $100 in seed and $100 in chemicals
   e. None of the above is the best combination.

18. How much would you invest if you have unlimited capital or you can invest as much as you want?
   a. $500 in all three areas as returns exceed costs.
   b. $300 in fertilizer, $500 in seed, and $300 in chemicals.
   c. Only $300 in fertilizer and none in the other areas.
   d. $500 in seed and none in the other areas.
   e. None of the above.
The next six question are based on the following information.

You are looking into purchasing a combine for your farm business. You have pulled together the following information for a combine purchase and want to calculate costs.

- Purchase price = $100,000
- Salvage value = $40,000
- Years of useful life = 6 years
- Fuel cost = $1.00/gallon
- Fuel use (gallon/hour) = 4.5
- Taxes = 1% of new cost
- Labor cost = $10.00/hour
- Labor amount (use) = 500 hours
- Repairs = 5% of new cost
- Number of acres = 600 acres
- Interest rate = 8%

19. In a budget for combine ownership, what is the annual interest cost?
   a. $4,800
   b. $8,000
   c. $4,000
   d. $5,600
   e. None of the above.

20. In a budget for combine ownership, what is the annual depreciation? (Use straight line as you did in the marketing lab - Lab 6)
   a. $16,667
   b. $11,667
   c. $10,000
   d. $3,000
   e. None of the above.

21. In a budget for combine ownership, what is the annual level of taxes?
   a. $1,000
   b. $400
   c. $600
   d. $1,400
   e. None of the above.

22. What is the level of fuel cost per acre? (As indicated, you will use the combine on 600 acres.)
   a. $4.50
   b. $5.00
   c. $4.00
   d. $5.50
   e. None of the above.

23. In a budget for combine operating cost, what is the annual repair cost?
24. In a budget for combine operating cost, what is the labor cost per acre?
   a. $8.50
   b. $7.49
   c. $12.38
   d. $10.97
   e. None of the above.

25. Given this, how many acres are needed before you can justify ownership? (Don’t consider any factors such as potential yield differences, etc.)
   a. At least 400 acres
   b. At least 516.13 acres
   c. At least 1600 acres
   d. At least 761.90 acres
   e. None of the above.

26. With further calculation, you conclude that if you have Joyce and Heather custom combine your soybean crop they will have a combine with more current harvesting technology. Your analysis indicates they will harvest one more bushel per acre if they harvest the crop. You project that the soybean price will be $5.00 per bushel. Given this, what is the break even number of acres? (However, with this calculation, assume that the annual fixed ownership cost is $15,000 per year; the operating cost per acre is $10.00 and the custom rate is $25.00 per acre.)
   a. At least 750 acres
   b. At least 1500 acres
   c. At least 1000 acres
   d. At least 500 acres
   e. None of the above.
27. During Spring Break, which is a bit more than a week away,
   a. are you going to get some time to yourself fully charged and come back ready to go to finish of the semester full of energy.
   b. you are going to do some fun things.
   c. you are going to do some thing that you enjoy.
   d. **Hint:** “You are going to do all of the above” is the best answer.
   e. You are going to do all the above.

The next four questions are based on the following information:

You have been provided the following information from “Cy Acres” and asked to provide assistance on the analysis.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest expense</td>
<td>$10,000</td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>$60,000</td>
</tr>
<tr>
<td>Unpaid labor charge</td>
<td>$30,000</td>
</tr>
<tr>
<td>Unpaid management charge</td>
<td>$10,000</td>
</tr>
<tr>
<td>Opportunity cost of capital</td>
<td>8%</td>
</tr>
<tr>
<td>Beginning asset value</td>
<td>$400,000</td>
</tr>
<tr>
<td>Ending asset value</td>
<td>$420,000</td>
</tr>
<tr>
<td>Beginning equity value</td>
<td>$300,000</td>
</tr>
<tr>
<td>Ending equity value</td>
<td>$320,000</td>
</tr>
</tbody>
</table>

28. What is “Cy Acres” return to assets?
   a. $60,000
   b. $50,000
   c. $90,000
   d. $30,000
   e. None of the above.

29. If “Cy Acres” return on assets is $25,000 (not the correct answer), what is her rate of return to assets (ROA)?
   a. 10.95%
   b. 8.06%
   c. 6.10%
   d. 22.73%
   e. None of the above.

30. What is “Cy Acres” return to equity?
   a. $20,000
   b. $50,000
   c. $30,000
   d. $60,000
   e. None of the above.
31. If “Cy Acres” return on equity was $40,000 (not the correct answer), what is her rate of return on equity (ROE)?
   a. 9.76%
   b. 12.90%
   c. 9.68%
   d. 0.00%
   e. None of the above.

32. What is “Cy Acres” return to labor and management?
   a. 
   b. 
   c. 
   d. 
   e. 

33. Which of the following best describes a “particular” profit and loss statement?
   a. it shows changes in assets and liabilities over the last accounting period.
   b. it shows changes in assets and liabilities over a period of time.
   c. it shows assets and liabilities at a point in time.
   d. it shows business profits for the last accounting period.
   e. None of the above.