Part I: Multiple Choice. Circle the best answer. (3 points each)

1. Advantages of land ownership would include:
   a. frees up working capital, operation size is more flexible, financial obligations are more flexible
   b. security of tenure, pride of ownership, high return on capital (ROA)
   c. pride of ownership, management independence, operation size is more flexible
   d. can have cash flow problems, lower returns on capital, less working capital
   *none of the above*

2. Disadvantages of leasing land would include:
   a. frees up working capital, operation size is more flexible, financial obligations are more flexible
   b. insecurity of tenure, no pride of ownership, cannot be used as loan collateral
   c. financial obligations are less flexible, access to additional management, frees up working capital
   d. cannot be used as loan collateral, no pride of ownership, financial obligations are more flexible

3. The following can be methods of gaining control of capital:
   a. debt (or borrowed) capital
   b. lease the asset
   c. outside equity
   d. your net worth
   *all of the above*

4. The tenant bears the most risk with:
   a. a cash rent lease
   b. a custom farming contract
   c. a mix of base cash rent and crop share lease
   d. a 50-50 crop share rent lease

5. The Iowa Land Value Survey for 2003, which was handed out in class, discussed some positive factors impacting land value in 2003. They included:
   a. good weather conditions
   b. high interest rates
   c. low soybean yields
   d. scarcity of land on the market
   *none of the above*

6. Insurance companies primarily provide the following types of credit to agriculture:
   a. long-term such as for real estate
   b. intermediate-term such as for a building
   c. short-term such as for feeder cattle purchase
   d. all the above types of credit are primary credit areas for insurance companies
7. There are various sources of credit for agricultural purposes in Iowa. In December 2001 the agency which extended the greatest amount of credit in agriculture was:
   a. the Farm Service Agency
   b. commercial banks
   c. the Farm Credit System
   d. individuals and others
   e. none of the above

8. From 1997 through 2001 the Farm Credit System:
   a. did not change its relative share of agricultural credit while agencies such as the Farm Service Agency increased its relative share
   b. reduced its relative share of agricultural credit while other sources such as equipment dealers increased their relative share
   c. increased its relative share of agricultural credit while agencies such as the Farm Service Agency reduced its share
   d. increased its relative share of agricultural credit while agencies such as the Farm Service Agency reduced its relative share

9. According to a recent survey of farmland prices in Iowa, the average price per acre of land sold in Iowa in 2003 was $2,735 per acre.
   a. $2,083
   b. $4,970
   c. $5,620
   d. $1,050
   e. none of the above

You have pulled together the following information:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation rate</td>
<td>5%</td>
</tr>
<tr>
<td>Net income per acre</td>
<td>$120.00</td>
</tr>
<tr>
<td>Interest rate</td>
<td>7%</td>
</tr>
<tr>
<td>Value of land as reflected on net worth statement</td>
<td>$1,800</td>
</tr>
</tbody>
</table>

10. Given this, what value would you place on the land using the income capitalization approach?
   a. $1,714.29
   b. $2,400.00
   c. $6,000.00
   d. $1,800.00
   e. none of the above
Now you are a veteran at Econo 330 One Stop Bank and doing your own loan analysis. Christy Cyclone comes to you for a loan and provides the following information from her farm financial records:

- Total Assets = $400,000
- Rate of return on equity = 5%
- Rate of return on assets = 6%
- Total debt = $200,000
- Interest paid = $30,000

11. Given this, what is the maximum debt-to-asset ratio that Christy can go to?
   a. 33.33 percent
   b. 120 percent
   c. 60 percent
   d. 40 percent
   e. 50 percent

The next five questions are based on the following information. You have bought a tractor. The purchase price is $160,000. You will borrow $140,000 and use $20,000 from the sale of corn to pay for the tractor. The $140,000 loan will be paid off over 7 years with an interest rate of 7.5 percent. The loan will be paid annually. A table provided may help with some of the questions.

12. If you have an equal principal payment plan, how much interest do you pay with your fourth annual payment?
   a. $4,500
   b. $6,000
   c. $10,500
   d. $7,500
   e. none of the above

13. For the equal total payment plan, how much principal do you pay in the first year?
   a. $15,932
   b. $16,750
   c. can’t determine with the information provided
   d. $12,346
   e. none of the above

14. For the equal principal payment plan, how much interest will you have paid in total after you have made your third payment? This is the total interest for the first three years.
   a. $33,000
   b. $7,500
   c. $27,000
   d. $19,520
   e. can’t determine with the information provided

15. If you have an equal total payment plan, what is the level of payment (principal and interest) will you make in year 4?
   a. $26,432
   b. $30,208
   c. $18,880
   d. $41,825
   e. can’t determine with the information provided
16. For the equal total payment plan how much interest do you pay in the second year?
   a. $10,500.00
   b. $9,305.10
   c. $9,975.25
   d. $8,647.21
   e. none of the above

17. Which of the following best describes a ‘particular’ balance sheet (Net Worth Statement)?
   a. it shows changes in assets and liabilities over the last accounting period
   b. it shows business profits for the last accounting period
   c. it shows assets and liabilities at a point in time
   d. it shows changes in assets and liabilities over a period of time

18. Location of production of products such as corn, cattle or any product can be impacted by:
   a. climate
   b. social and population
   c. distance to markets
   d. comparative advantage
   e. all of the above are factors which impact where products are produced

The next five questions are based on the following information:

You have been provided the following information from ‘330 Acres’ and asked to provide assistance on the analysis.

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<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
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<tr>
<td>Unpaid labor charge</td>
<td>$25,000</td>
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<tr>
<td>Unpaid management charge</td>
<td>$15,000</td>
</tr>
<tr>
<td>Interest expense</td>
<td>$20,000</td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>$55,000</td>
</tr>
<tr>
<td>Capital charge (opportunity cost)</td>
<td>6%</td>
</tr>
<tr>
<td>Average asset value</td>
<td>$500,000</td>
</tr>
<tr>
<td>Average level of liabilities</td>
<td>$300,000</td>
</tr>
<tr>
<td>Reduced level of liabilities</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

19. If ‘330 Acres’ return to assets is $40,000 (not the correct answer), what is her rate of return to assets (ROA)?
   a. 8.00%
   b. 13.33%
   c. 20.00%
   d. 6.59%
   e. none of the above

20. What is ‘330 Acres’ return to assets?
   a. $75,000
   b. $55,000
   c. $35,000
   d. $50,000
   e. none of the above
21. If '330 Acres' return to equity was $40,000 (not the correct answer), what is her rate of return on equity (ROE)?
   a. 8.00%
   b. 13.33%
   c. 20.00%
   d. 6.59%
   e. none of the above

22. What is '330 Acres' return to labor?
   a. $25,000
   b. $40,000
   c. $30,000
   d. $45,000
   e. none of the above

23. What is '330 Acres' return to equity?
   a. $30,000
   b. $15,000
   c. $55,000
   d. $25,000
   e. none of the above

24. A recent survey by Dr. Mike Duffy on Iowa land values showed that Iowa land values increased:
   a. by 12.2 percent in 2003
   b. by 8.2 percent in 2003
   c. by 9.2 percent in 2003
   d. by 7.6 percent in 2003
   e. none of the above shows the correct increase for 2003

25. According to Tim Fevold, Hertz Farm Management:
   a. more than 75 percent of the land in Iowa is farmed by the owner
   b. more than half of the land in Iowa is farmed by the person owning it
   c. about 80 percent of the land in Iowa is farmed by a tenant
   d. about 40 percent of the land in Iowa is farmed by the owner
   e. none of the above

26. Tim Fevold, of Hertz Farm Management:
   a. is a graduate of the University of Northern Iowa
   b. has been recognized as the Farm Manager of the Year
   c. is an accredited farm manager
   d. all of the above
   e. b and c above

27. According to Tim Fevold, Hertz Farm Management, if you want to terminate a lease in Iowa for the year 2004, it needs to be terminated by:
   a. November 30, 2003
   b. January 1, 2004
   c. September 1, 2003
   d. before the crop season starts in 2004
   e. none of the above is the correct date
28. The three C’s of credit are:
   a. cash flow, credit application, credit consumption
   b. credit application, cash flow, collateral
   c. character, contingency cash, cash flow
   d. collateral, character, cash flow
   e. none of the above

29. With a loan payment plan that is an equal total payment plan the:
   a. amount of principal paid for each successive payment increases
   b. amount of principal paid for each successive payment decreases
   c. amount of interest paid for each successive payment increases
   d. the amount of principal paid for each successive payment remains the same

30. Crop share arrangements tend to vary across the country. As a tenant renting land you would expect to:
   a. receive a smaller percent of the crop from land with higher productivity
   b. receive the same percent of the crop irregardless of land productivity
   c. receive a smaller percent of the crop from land with lower productivity
   d. receive a larger percent of the crop from land with a higher productivity

The following information is for the next two questions.

You are provided the following information:

- Debt/asset ratio = 0.25
- Level of equity = $300,000
- Net farm income from operation = $50,000
- Capital charge (opportunity cost) = 4%
- Interest expense = $20,000

31. Assume that the interest expense was all related to the debt reflected in the above example. If the rate of return on assets is 15 percent, the:
   a. rate of return on equity is less than the rate of return on assets
   b. rate of return on equity is greater than the rate of return on assets
   c. rate of return on equity is equal to the rate of return on assets
   d. you can’t determine the relationship with the information provided

32. Given this, what is the return to labor and management?
   a. $50,000
   b. $70,000
   c. $58,000
   d. $54,000
   e. none of the above
33. You have just started your new job at Econo 330 One Stop Bank. A client, Henry Hawkeye, would like to know what his rate of return to equity is. It surprised you that a Hawkeye would know that there was such a thing. He provided you with the following information:

- Total assets = $500,000
- Total liability = $400,000
- Rate of return on assets = 10 percent
- Interest cost (rate) = 7 percent

Given this, what is the rate of return on equity?

a. 11 percent
b. 19 percent
c. 22 percent
d. can’t calculate with the limited information provided
e. none of the above

BONUS – 3 points

There is a major ISU student-run celebration coming up the weekend of April 11, 12, and 13. Unscramble the following letters to get the function – VIHSEEA.

VIHSEEA

If you need a hint, let me know.
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<th>Years</th>
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**TABLE 1. AMORTIZATION FACTORS FOR EQUAL TOTAL PAYMENTS**