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

1. If the rate of return on assets is less than the interest rate, the rate of return on equity is:
   a. Greater than the rate of return on assets
   ᶂ Less than the rate of return on assets
   c. Negative
   d. Equal to rate of return on assets
   e. None of the above

2. 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
   ᶂ All of the above

3. According to the ‘Sources for Agricultural Credit’ information, commercial banks provide the following types of credit to agriculture:
   a. Long-term such as for real estate
   b. Intermediate-term such as for livestock and machinery
   c. Short-term such as for a feeder cattle purchase, fertilizer, etc.
   ᶂ All the above types of credit are types of credit you can get from commercial banks

4. Which of the following best describes a ‘particular’ income statement (profit and loss statement)?
   a. It shows changes in assets used in the business
   b. It shows the assets and liabilities over the last accounting period
   c. It shows assets and liabilities at a point in time
   ᶂ It shows business profit or loss for the last accounting period
   e. It shows changes in liability level for the last accounting period

5. 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
   ᶂ All of the above are factors which impact where products are produced
6. According to the 'sources of agricultural credit' the farm credit system (FCS) provides the following types of credit to agriculture:
   a. Only long-term such as for real estate
   b. Only long-term and intermediate term such as for machinery and equipment
   c. Only short-term such as for seed and fertilizer, etc.
   \( \checkmark \) Provides short-term, intermediate-term, and long-term credit

7. You have the following information from Sam's Suitable Farm.
   - Total farm assets $500,000
   - Value of farm production $250,000
   - Total liability $250,000

   Given this, what is Sam's asset turnover ratio?
   a. 1.0
   b. .5
   c. .75
   d. 2.5
   e. 1.5
   \( \checkmark \)

8. Laurie and Steve Henry have the opportunity to feed out cattle this year. You helped them pull together the following information (assume they have a feedlot):
   - Projected variable costs $210,000
   - Projected fixed costs $40,000
   - Projected total production costs $250,000
   - Projected income $200,000

   a. Steve and Laurie should leave the feedlot empty this year
   b. Laurie and Steve should place cattle in the feedlot this year
   c. The economic situation is the same for either choice, place cattle or not place cattle, that the Henry's make
   d. There is not sufficient information to determine if cattle should be placed in the feedlot this year
   \( \checkmark \)

Question 9-12 are based on the following information for 330 acres:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>$453,647</td>
</tr>
<tr>
<td>Intermediate assets</td>
<td>$361,174</td>
</tr>
<tr>
<td>Total assets</td>
<td>$2,014,078</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>$314,377</td>
</tr>
<tr>
<td>Intermediate liabilities</td>
<td>$28,999</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>$441,786</td>
</tr>
</tbody>
</table>

9. What is the debt-to-asset (debt/asset) ratio for 330 Acres?
   a. 4.56
   b. .219
   c. .781
   d. .692
   e. None of the above
   \( \checkmark \)
10. What is the working capital for 330 Acres:
   a. $320,631
   b. $111,222
   c. $66,169
   d. $533,391
   e. $267,901
   \[ \text{None of the above} \]

11. What is the current ratio for 330 Acres? (As calculated in the text.)
   a. 4.56
   b. 2.838
   c. 1.44
   d. 1.28
   e. None of the above

12. Is 330 Acres operation solvent?
   a. Yes
   b. No
   c. Can’t determine with the information provided.

The next five questions (13-17) are based on the following information:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpaid labor charge</td>
<td>$20,000</td>
</tr>
<tr>
<td>Unpaid management charge</td>
<td>$10,000</td>
</tr>
<tr>
<td>Interest expense</td>
<td>$25,000</td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>$60,000</td>
</tr>
<tr>
<td>Capital charge (opportunity cost)</td>
<td>7%</td>
</tr>
<tr>
<td>Average asset value</td>
<td>$600,000</td>
</tr>
<tr>
<td>Average level of liabilities</td>
<td>$400,000</td>
</tr>
<tr>
<td>Reduced level of liabilities</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

13. What is ‘330 Acres’ return to assets?
   a. $85,000
   b. $55,000
   c. $60,000
   d. $35,000
   e. None of the above.

14. If ‘330 Acres’ return to assets is $50,000 (not the correct answer), what is her rate of return to assets (ROA)?
   a. 10.00%
   b. 8.33%
   c. 14.16%
   d. 7.59%
   e. None of the above
15. If ‘330 Acres’ return to equity was $45,000 (not the correct answer), what is her rate of return on equity (ROE)?
   a. 15.00%
   b. 22.5%
   c. 7.5%
   d. 33.00%
   e. None of the above

16. What is ‘330 Acres’ return to labor?
   a. $85,000
   b. $75,000
   c. $43,000
   d. $33,000
   e. None of the above

17. What is ‘330 Acres’ return to equity?
   a. $30,000
   b. $15,000
   c. $40,000
   d. $25,000
   e. None of the above

The next two questions (18-19) are based on the following information. Your neighbor “Hawkeye Hotfeet” has purchased a tractor for his crop operation. He heard that you were in Econ 330 and that depreciation methods had been discussed. Being a “Hawkeye” he had never heard of depreciation or any other business thing. Moreover, he didn’t know the Cyclones bet the Hawkeye football team the majority of the time over the past 10 years. He was wondering how much depreciation he would calculate for his business records. He gave the following information on the tractor.

- Purchase price: $80,000
- Years of useful life: 5 years
- Salvage value: $35,000
- Purchase date: January 1

18. What is the amount of depreciation “Hawkeye Hotfeet” would claim in the third year using the straight line method of depreciation?
   a. $9,000
   b. $4,500
   c. $16,000
   d. There is not any depreciation remaining for year 6.
   e. None of the above
19. What is the amount of declining balance depreciation “Hawkeye Hotfeet” would claim in the first year using the double declining balance method of depreciation?
   a. $32,000
   b. $13,000
   c. $15,000
   d. $40,000
   e. None of the above

The following information is for the next two (20-21) questions.

You are managing Econ 330 Farms and have the following information.

| Hog sales                              | $300,000 |
| Beginning hog inventory               | $150,000 |
| Ending hog inventory                  | $130,000 |
| Hog purchases                         | $120,000 |
| Value homegrown feed fed              | $70,000  |
| Purchase feed fed                     | $20,000  |
| Home consumption                      | $1,000   |

20. Given this, what is the return per $100 feed fed for the hog enterprise?
   a. $176.66
   b. $177.77
   c. $200.00
   d. $178.88
   e. None of the above

21. Given the above information, and that feed costs represented 50 percent of the total production costs, you:
   a. Made money (profit) in the hog feeding operation
   b. Lost money in the hog feeding operation
   c. Can’t determine if you made or lost money with the information provided

22. In 2006 the financial institution with the largest share of non-real estate farm debt was:
   a. Farm Service agency
   b. Banks (commercial)
   c. Farm Credit system
   d. Insurance companies
   e. Individuals
23. Types of loan repayment plans would include:
   a. Single payment
   b. Line of credit
   c. Amortized equal payment plan
   d. Amortized total payment plan
   ✐ All of the above

24. Steve and Laurie have the opportunity to purchase some swine manure from a neighbor. They have tested the manure and the test showed the following per 1,000 gallons: 45 pounds of N, 35 pounds of P₂O₅, and 25 pounds of K₂O. If the price of N is $.50/pound, P₂O₅ is $.45 per pound, and K₂O is $.40/pound. What is the value of the manure per 1,000 gallons using component pricing?
   a. $55.75
   b. $22.50
   ✐ $48.25
   d. $45.25
   e. None of the above

25. Items that it would be helpful to know in using manure for fertilizer in your crop nutrient plan would include:
   a. Quantity of manure available
   b. Manure handling costs
   c. Nutrient needs of crop
   d. Cost of commercial fertilizer
   ✐ All of the above

Part II. Bonus – 2 points

There is a major United States holiday coming up this month. Unscramble the following letters to get the holiday.

S A K T N H I G N V G

If you need a hint, let me know.