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

1. When evaluating the solvency of a farm business which is applying for a loan, a lender would be most likely to look at the farm’s:
   a. Checking account balance
   b. Net farm income from operations
   c. Cost value net worth
   d. Market value net worth
   e. Value of feed in storage

2. Which financial statement covers a single point in time rather than a period of time?
   a. Net income statement (profit and loss statement)
   b. Your net farm income from operations
   c. Net worth statement (balance sheet)
   d. Your return to labor and management

3. Which of the following would appear on a balance sheet?
   a. Payments for land purchases
   b. Your net farm income from operations
   c. Interest expenses for last year
   d. Your amount of liability
   e. Value for which you sold land
   f. a and c above

4. An accrued interest expense is one where:
   a. you have paid by check rather than cash.
   b. the accounting period prior to the one in which you purchased an item is two years in length.
   c. is the amount of interest which has accumulated on a loan from the last time you paid it up to the date you are doing the balance sheet.
   d. your total interest on a loan this year.
   e. none of the above

5. Which of the following is an example of a current asset?
   a. market livestock value
   b. land you own
   c. loan on farm machinery
   d. account payable
   e. b and d above
   f. none of the above

6. Which of the following is an example of a current liability?
   a. total liability on a five year machinery loan
   b. loan on feed purchases
   c. value of feed in storage
   d. your land loan
   e. your net farm income from operations
   f. none of the above
7. If a business has a current ratio which is less than one (the way it was discussed in class):
   a. current assets exceed current liability
   b. liabilities exceed assets
   c. current liabilities exceed current assets
   d. assets exceed liabilities

8. Which of the following would appear on a profit and loss statement?
   a. your liabilities
   b. your assets
   c. the principal you paid on your land loan
   d. your net farm income from operations
   e. a and b above

9. If a business has a debt/asset ratio which is greater than .42:
   a. it is in good financial shape.
   b. it is not solvent; it is bankrupt.
   c. the short term financial picture is tight but it looks good in the longer run.
   d. the net farm income from operations has been at good levels in the past.
   e. none of the above apply.

10. The degree to which a business' current assets adequately cover or exceed the current liabilities is referred to as:
    a. bankruptcy
    b. solvency
    c. profitability
    d. net worth
    e. liquidity
    f. none of the above

11. Which of the following should be valued using the net market price method? (Balance sheet is to reflect your financial situation at the time the balance sheet is completed.)
    a. tractor
    b. soybeans in storage
    c. purchased dairy cow
    d. land
    e. a and b above
    f. none of the above
The next question is based on the following information:

Cash farm expense $200,000
Grain inventory decrease 10,000
Cash farm income 300,000
Depreciation 20,000
Family labor (opportunity) charge 18,000
Market livestock inventory increase 5,000
Equity 250,000

12. What is the net farm income from operations for the information provided?
   a. $ 95,000
   b. $ 100,000
   c. $ 90,000
   d. $ 75,000
   e. $105,000
   f. $ 55,000

13. Which of the following is not a step in partial budgeting?
   a. estimating increased costs
   b. estimating decreased revenues
   c. estimating market price changes
   d. estimating decreased costs
   e. estimating increased revenues

14. When analyzing major changes in a farm business, such as buying land or constructing a livestock building, a whole farm budget should include:
   a. average commodity prices likely to occur over the next 5-10 years.
   b. the most likely commodity prices for the next 6-12 months.
   c. expected expenses over the next 6-12 months.
   d. cash flows from operating loans.
   e. none of the above.

15. You are calculating the feed cost for a feeder pig enterprise budget. You purchase the pig at 50 pounds and sell a 250 pound pig. It requires 3 pounds of feed per pound of gain. Feed cost is $.06 per pound. Given this, what is the feed cost per pig?
   a. $30.00
   b. $18.00
   c. $25.00
   d. $12.50
   e. none of the above

The next three questions are based on a Steer Calf Budget (see rack outside 178 Heady).

16. Attached is a livestock enterprise budget for finishing steer calves. If the feeder cost is $.80 per pound, what is the purchase price for a steer calf of the type shown in the budget?
   a. $495.00
   b. $550.00
   c. $440.00
   d. $435.60
   e. none of the above
17. Using the information in the budget, what is the gross margin per steer calf finished? The market price is $.80 per pound.
   a. $920.00
   b. $910.80
   c. $323.57
   d. $90.78
   e. none of the above

18. What is the break-even selling price needed to cover all costs for the steer calf budget?
   a. $.72
   b. $.74
   c. $.76
   d. $.70
   e. none of the above

The next four questions are based on the following information for Clone’s Balance Sheet.

   Current assets $ 60,000
   Intermediate assets 100,000
   Fixed assets 200,000
   Total assets 360,000
   Fixed liabilities 140,000
   Current liability 40,000
   Intermediate liability 60,000
   Total liabilities 240,000

19. What is Clone’s working capital?
   a. $ 60,000
   b. $ 20,000
   c. $120,000
   d. $ 40,000
   e. $360,000
   f. none of the above

20. What is Clone's equity-to-asset ratio?
   a. 1.50
   b. .667
   c. .333
   d. 2.0
   e. .950
   f. none of the above

21. What is Clone’s current ratio? (As calculated for Cy Acres in class and in the text.)
   a. 2.0
   b. .80
   c. 1.5
   d. 1.33
   e. none of the above
22. What is Clone’s debt-to-asset ratio?
   a. .667
   b. .333
   c. 1.50
   d. 2.00
   e. none of the above

The next two questions are based on the following information.

You are looking into purchasing a new pickup truck for your construction business. You have pulled together the following information and want to calculate some ownership (fixed) costs.

<table>
<thead>
<tr>
<th>Interest rate</th>
<th>8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase price</td>
<td>$27,000</td>
</tr>
<tr>
<td>Years of useful life</td>
<td>6 years</td>
</tr>
<tr>
<td>Taxes</td>
<td>1% of new cost</td>
</tr>
<tr>
<td>Salvage value</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

23. In a budget for truck ownership what is the annual interest?
   a. $1,360
   b. $2,960
   c. $1,480
   d. $680
   e. none of the above

24. In a budget for truck ownership what is the annual depreciation?
   a. $4,500.00
   b. $6,166.67
   c. $2,833.33
   d. $2,500.00
   e. none of the above

The following is for the next two questions.

You have the option of purchasing a self-propelled combine or having your neighbors, Joyce and her daughter Heather, custom harvest your crop. They will custom harvest the crop for $20.00 per acre. The purchase cost of the combine is $90,000. Given this, you calculate the annual fixed ownership cost to be $18,000 per year. The operating cost per acre if you harvest the crop yourself is $8 per acre.

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 900 acres
   b. At least 642.86 acres
   c. At least 1,500 acres
   d. At least 2,250 acres
   e. none of the above
26. With further calculations, you conclude that if you have Joyce and Heather custom combine your corn crop they will go faster to get over the land. Your analysis indicates you will harvest three more bushels per acre if you buy the combine and harvest the crop yourself. You project that the corn price will be $2.00 per bushel. Given this, what is the new break even number of acres?
   a. at least 692.31 acres
   b. at least 1,000 acres
   c. at least 529.41 acres
   d. at least 2,250 acres
   e. none of the above

You are looking into purchasing a new tractor for your farming business. You have pulled together the following information and want to calculate some operating (variable) costs.

PTO Horsepower = 100
Interest rate = 8%
Purchase price = $60,000
Years of useful life = 12 years
Taxes = 1% of new cost
Salvage value = $6,000
Labor cost = $8.00/hour
Labor amount = 300 hours
Fuel cost = $1.50 per gallon
Fuel use (gallon/hr) = .06 x PTO Horsepower

27. In a budget for machine operating cost, what is the fuel cost per acre? (You will use the tractor on 150 acres.)
   a. $1.00
   b. $12.00
   c. $6.00
   d. $18.00
   e. none of the above

28. If the rate of return on assets is more than the interest rate, the rate of return on equity is:
   a. greater than the rate of return on assets
   b. less than the rate of return on assets
   c. negative
   d. equal to rate of return on assets
   e. none of the above
29. One measure for comparison of enterprises between farm operations is return per $100 feed fed. You have pulled the following information from your Hog Enterprise Record System. What is the return per $100 feed fed?

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of homegrown feed fed</td>
<td>$150,000</td>
</tr>
<tr>
<td>Pig sales</td>
<td>$300,000</td>
</tr>
<tr>
<td>Pig inventory change</td>
<td>-$30,000</td>
</tr>
<tr>
<td>Pig purchases</td>
<td>$ 15,000</td>
</tr>
<tr>
<td>Value of purchased feed fed</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

a. $102.00  
b. $200.00  
c. $120.00  
d. $132.00  
e. $126.00  
f. none of the above

The next four questions are based on the following information:

You have been provided the following information from "ISU Acres" and asked to provide assistance on the analysis.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net farm income from operations</td>
<td>$ 50,000</td>
</tr>
<tr>
<td>Average assets</td>
<td>400,000</td>
</tr>
<tr>
<td>Average equity</td>
<td>250,000</td>
</tr>
<tr>
<td>Interest expense</td>
<td>20,000</td>
</tr>
<tr>
<td>Opportunity cost of capital</td>
<td>10%</td>
</tr>
<tr>
<td>Unpaid labor charge</td>
<td>25,000</td>
</tr>
<tr>
<td>Unpaid management charge</td>
<td>15,000</td>
</tr>
<tr>
<td>Return per $10,000 feed</td>
<td>25,000</td>
</tr>
</tbody>
</table>

30. What is "Clone Acres" rate of return on equity (ROE)?
   a. 2.50%  
b. 4.00%  
c. 12.50%  
d. 12.00%  
e. 20.00%  
f. none of the above

31. What is "Clone Acres" return to assets?
   a. $10,000  
b. $70,000  
c. $45,000  
d. $30,000  
e. $25,000  
f. none of the above

32. What is the return to labor for "Clone Acres"?
   a. $10,000  
b. $-10,000  
c. $35,000  
d. $25,000  
e. $50,000  
f. none of the above
33. What is the average interest cost (rate) for “ISU Acres”
   a. 5%
   b. 10%
   c. 8%
   d. 12%
   e. 4.44%
   f. none of the above

34. During Spring Break, which is a bit more than a week,
   a. you are going to get some time to get yourself fully charged and come back raring to go to finish off the semester full of energy.
   b. you are going to do some fun things.
   c. you are going to do some things that you enjoy.
   d. **Hint**: You are going to do all the above is the best answer.
   e. you are going to do all the above.