Land, Labor, Capital and Machinery

A. Circle the best answer. Put a square around your second choice, if you want (half credit). 4 points each.

1. Under a traditional crop share lease, the farm owner pays for half of the costs for:
   a. machinery fuel and repairs.
   b. hired labor.
   c. property taxes.
   d. seed, fertilizer and pesticides.

2. One advantage to the borrower of borrowing operating capital under a line of credit instead of a single-payment loan is:
   a. the borrower pays interest on loan funds only for time they are actually used.
   b. the interest rate is usually lower.
   c. there is definite expectation for when it is to be repaid.
   d. a larger quantity of funds can be borrowed.

3. The most effective type of bonus payment for increasing the efficiency of milkers on a dairy farm is one based on:
   a. the price of milk.
   b. the number of years they have worked there.
   c. the pounds of milk produced per cow.
   d. the number of cows being milked (herd size).

4. In Iowa, if a farm lease is not terminated by September 1:
   a. the farm is put up for a rental auction.
   b. the rental rate must be renegotiated.
   c. the lease continues for another year, under the same terms.
   d. only the tenant can change the terms.

5. A balloon payment loan has:
   a. a larger amount of principal due with the final payment.
   b. a higher interest rate for the final payment.
   c. loan funds dispersed to the borrower as they are needed.
   d. increasing total payments over the scheduled repayment period.
6. The total debt-to-asset ratio is a commonly used measure of the ________ of a farm business.

   a. liquidity
   b. solvency
   c. efficiency
   d. profitability

7. Which of the following could explain why a profitable farm business is experiencing temporary cash flow shortages?

   a. The breeding livestock enterprise is undergoing major expansion.
   b. The repayment term on major loans is too long.
   c. Not enough funds are being withdrawn to fully pay family living expenses.
   d. Major machinery items are being leased instead of purchased on credit.

8. For short-term rental of a piece of farm machinery, the farmer pays:

   a. a fixed payment each year.
   b. for fuel and repairs only.
   c. for services of both the machine and the operator.
   d. a fixed rate per acre, hour, or day of use.

9. When a farm machinery lease ends, the farmer:

   a. receives full ownership of the machine.
   b. has the option to purchase the machine or return it.
   c. can sell the machine to anyone.
   d. must take the machine off the farm’s depreciation schedule.

10. When interviewing prospective farm employees, try to ask questions:

    a. about their religious beliefs, to see if they match yours.
    b. that can easily be answered with “yes” or “no.”
    c. that are open-ended and cause the applicant to explain his/her experience.
    d. about the applicant’s personal life, so you can judge their moral character.

**B. Answer as indicated.**

11. List four elements that should be included in a farm employee agreement. 8 points

    a. 
    b. 
    c. 
    d. 

   ————
   ————
   ————
   ————

"2"
12. Indicate with the appropriate letter which agricultural lender is best described by each statement below. (One answer for each).  

A. commercial banks
B. Farm Credit Services
C. input suppliers
D. Farm Service Agency
E. insurance companies

_____ Guarantees loans made by other lenders.
_____ You must buy their products to get credit.
_____ Raises capital by selling bonds in the national money market.
_____ Makes special beginning farmer loans.
_____ Has the largest market share for non-real estate loans in the U.S.
_____ Makes loans mostly for farm real estate.

13. Under what conditions would you expect joint ownership of farm machinery to be most successful?

14. Calculate the first two annual payments for a $100,000 loan, borrowed for 25 years at 7% annual interest, under an even total payment amortized schedule. The amortization factor for 25 years, at 7% is .0858.

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<th>Interest</th>
<th>Principal</th>
<th>Balance Owed</th>
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15. Using the income capitalization approach to valuing farmland, when the long-term cost of capital is 8% and the rate of inflation is 3%, what is the discount rate?  

\[ \boxed{\text{discount rate}} \]

Given the following estimates for costs and returns, what would the estimated land value be?  

\[ \boxed{\text{estimated land value}}/\text{acre} \]

16. The Thomas family has a chance to build three hog finishing units, at a cost of $300,000. They would need to borrow most of this amount, but they can obtain a contract to custom feed pigs.

- Super Pig, Inc. would pay them $90,000 each year for finishing their feeder pigs.
- They would have to make an annual payment of $20,000 principal and $14,000 interest at the beginning.
- The building would depreciate $15,000 each year.
- Taxes, utilities and maintenance costs would be $20,000 per year.
- They would have to take out $30,000 per year for family living expenses.

Answer the following questions about their financial situation after the facility is in operation. Show your work.

\[ \boxed{\text{net effect on farm cash flow each year}} \]

\[ \boxed{\text{net effect on net farm income each year}} \]

\[ \boxed{\text{net effect on cost value net worth each year}} \]
17. List 2 reasons why you think the use of crop share leases is decreasing in Iowa, in favor of fixed cash leases?  

a. 

b. 

18. Which type of leasing agreement does each of the statements below describe? Use one letter for each.  

A. Custom farming agreements  
B. Crop share lease  
C. Fixed cash rent  
D. Flexible cash rent  

_____ Owner has the most financial risk  
_____ Payment depends on actual prices and yields each year.  
_____ All government payments go to the landowner.  
_____ Gross income is shared in the same proportion as total costs.
1. D
2. A
3. C
4. C
5. A
6. B
7. A
8. D
9. B
10. C

11. a. Hours and days of work, vacation and sick leave.
    b. Wages/salary, bonuses, time of payment, and overtime.
    c. Benefits (insurance, housing, etc.).
    d. Termination, evaluation, duties, lines of authority, and responsibilities.


13. - low use machines
    - machines that can be used over a wide time period
    - operators who can work well together
    - close together

14. $100,000 \times .0858 = $8,580

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15. 8\% - 3\% = 5\%
    \[
    (300 + 30) - (120 + 60 + 30 + 20) = 330 - 230 = $100
    \]
    \[
    V = \frac{100}{.05} = \$2,000/acre
    \]

16. a. What would the net effect be on their farm cash flow each year?  
    Inflows: $90,000
    Outflows: $20,000 principal
              $14,000 interest
              $20,000 taxes, etc.
              $30,000 living expenses
    +$6,000

    b. What would the net effect be on their net farm income each year?  
    Income: $90,000
    Expenses: $14,000 interest
              $15,000 depreciation
              $20,000 taxes, etc.
    +$41,000

    c. What would the net effect be on their cost value net worth each year?  
    NFI $41,000
    -$30,000 living expenses
    $11,000

17. a. Older landowners like a fixed income, no risk; older or absentee landowners don’t want to be involved in marketing crops or paying bills.
    b. Cash rent leases have provided a higher return to landowners in recent years.

18. A, D, A, B