

2005 Iowa Vo Ag/FFA Farm Business Management
Career Development Event

MULTIPLE CHOICE SECTION (100 pts.)

Select the best answer (2 pts ea). Code your answers on the answer sheet provided. Be sure to erase completely any answers that you change.

1. At any point in time, a farm business has a positive net worth if:
 - a. net income > 0
 - b. total assets > 0
 - c. (total assets – total liabilities) > 0
 - d. (current assets – current liabilities) > 0

2. A multi-year loan often associated with the purchase of land is typically called:
 - a. a chattel
 - b. a lien
 - c. a mortgage
 - d. an annuity

3. Monies owed to a business but not yet collected are called:
 - a. opportunity costs
 - b. accounts receivable
 - c. forthcoming expenses
 - d. accounts payable

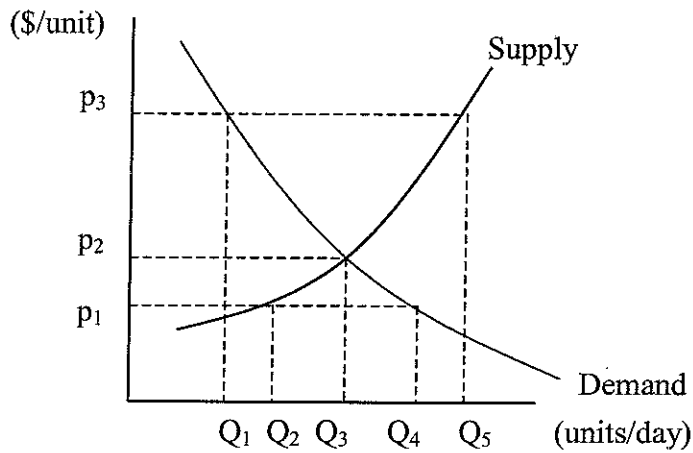
4. Costs that have already been incurred and cannot now be avoided are called:
 - a. opportunity costs
 - b. marginal costs
 - c. sunk costs
 - d. variable costs

5. A straight line passes through points A ($x=3, y=5$) and B ($x=6, y=6$), where x is the horizontal axis variable. The slope of this line is:
 - a. -3
 - b. - 1/3
 - c. +3
 - d. + 1/3

6. The law of demand states
 - a. demand curves slope downward
 - b. demand curves shift to the right if income increases
 - c. people demand more if the good is inferior
 - d. demand will increase if a substitute product becomes more expensive

7. Which of the following would cause a shift to the right of the market demand curve for a normal good?
- a decrease in the price of that good
 - a decrease in the price of a substitute product
 - an increase in supply
 - an increase in population (i.e. number of consumers)
8. What word is most similar to 'marginal' in marginal analysis in economics?
- inferior
 - incremental
 - average
 - inefficient
9. Suppose the demand for eggs is given by the equation $Q_d = 100 - 2P$. What is price if quantity demanded = 96?
- \$4.00
 - \$2.00
 - \$4.80
 - \$48.00

For questions 10 through 13 refer to the following graph of supply and demand curves in a hypothetical market.



10. Equilibrium in this market is:
- price = P_3 , quantity = Q_3
 - price = P_2 , quantity = Q_2
 - price = P_2 , quantity = Q_3
 - price = P_1 , quantity = Q_2

11. At a price of p_3 the quantity supplied would be:
- Q_1
 - Q_3
 - Q_5
 - $Q_5 - Q_1$
12. If the price in this market were temporarily at a level of p_1 , there would be:
- excess demand in the amount $Q_5 - Q_4$
 - excess demand in the amount $Q_4 - Q_3$
 - excess supply in the amount $Q_4 - Q_2$
 - excess demand in the amount of $Q_4 - Q_2$
13. A change in the equilibrium point to price p_2 and quantity Q_1 would require:
- an increase in demand and an increase in supply
 - an increase in demand and a decrease in supply
 - a decrease in demand and an increase in supply
 - a decrease in demand and a decrease in supply
14. Labor expense per head of hogs sold is an example of:
- marginal cost
 - average cost
 - opportunity cost
 - fixed cost
15. A person who sells a futures contract has this futures market position and obligation respectively:
- long, take delivery
 - long, make delivery
 - short, make delivery
 - short, take delivery
16. The price of output multiplied by quantity of output is:
- total assets
 - profit
 - total revenue
 - net worth
17. The annual rate of return earned by a farmer on his/her assets was 5%? Net earnings for the year were \$30,000. This implies:
- total assets = \$150,000
 - total assets = \$600,000
 - equity = \$150,000
 - equity = \$600,000

18. A future borrowing needs of a business can best be determined by looking at which of the following financial statements?
- cash flow
 - balance sheet
 - income statement
 - net worth statement
19. A farmer's after-tax cost of production will normally be:
- unaffected by the tax rate
 - greater than total costs
 - less than the before-tax cost
 - unaffected by input prices
20. A country's currency is also called that country's:
- interest rate
 - level of current imports
 - type of money
 - level of current employment
21. Which of the following would be the best value to use for the cost of feeding homegrown (nonpurchased) corn to beef cattle?
- 0
 - the cost of producing the corn
 - the average of corn costs for 2 or 3 recent years
 - the opportunity cost of the corn
22. A local elevator quotes a farmer corn at 25¢ under March futures for future sale, and will pick up the grain for free. Which of the following is most likely represented by the 25¢ number?
- the expected future March corn basis
 - the cost of hauling corn to the terminal
 - the elevator's commission fee per bushel
 - the farmer's profit per bushel
23. A farmer recently sold a depreciable asset for \$1500. The farmer had claimed \$700 of depreciation between the times of purchase and sale and reported a taxable realized gain of \$200. What had the asset been purchased for a few years earlier?
- \$2,000
 - \$2,400
 - \$1,000
 - \$1,300

24. Which of the following is least likely to impact the breakeven rate to charge by a custom combine operator?
- purchase price of the combine
 - grain prices
 - fuel costs
 - repair costs
25. Suppose a farmer's electricity expenses this year are \$4,400, while the same costs last year were \$4,000. What is the percentage increase in the cost of the electricity this year versus last year?
- 11%
 - 9.5%
 - 8%
 - 10%
26. The process of combining inputs and converting them into products/services by a farm business is called:
- investing
 - production
 - exchange
 - supply
27. A demand curve that shows consumers will buy the same quantity of a product regardless of the price is called:
- elastic
 - unitary
 - perfectly inelastic
 - horizontal
28. For a farm business firm, total revenue – total costs = :
- total production
 - depreciation
 - marginal income
 - profit
29. A short-run production period for a farm business is defined as one that:
- is one year or less
 - is five years or less
 - a firm is stuck with a fixed amount of at least one input
 - a firm has all variable inputs

30. Which of the following farm firm decisions is more likely to impact the firm's total costs, rather than the firm's total revenues?
- what inputs to use
 - what price to charge for the product
 - how to market the product
 - who to sell the product to
31. Assume, during 2004, the Moore farm business experienced a negative cash flow. This means the farm's
- net farm income was < 0
 - net worth decreased
 - cash outflows exceeded cash inflows
 - all of the above are true
32. For farm business income taxation purposes, depreciation is:
- NOT a deductible expense, because it is a noncash expense
 - added to gross income to determine taxable total income
 - a deductible expense
 - taxed at the capital gains tax rate
33. Which of the following would most likely be considered a fixed cost?
- machinery depreciation
 - purchased feed
 - seasonal labor
 - machinery repairs
34. For which of the following conditions would an increase in the quantity of cantaloupes produced by a cantaloupe enterprise increase the profits from that enterprise?
- marginal cost $>$ average variable cost
 - average variable cost $<$ average fixed cost
 - marginal revenue $>$ average fixed cost
 - marginal revenue $>$ marginal cost
35. If a sweet corn farmer is marketing his/her product 'direct', which of the following is most likely to be the farmer's customer(s)?
- produce wholesaler(s)
 - local farmers markets, restaurants, and grocery stores
 - sweet corn processor(s)
 - the local cooperative

36. Which of the following has happened for a farm firm whose current assets have increased more than current liabilities?
- a. solvency has increased
 - b. liquidity has increased
 - c. net worth has increased
 - d. debt has increased
37. If a producer's debt-to-asset ratio decreases, the producer's
- a. profitability has increased
 - b. net cash flow has decreased
 - c. long-term credit riskiness has decreased
 - d. total asset value has decreased
38. The price paid for an option is also known as the:
- a. strike price
 - b. premium
 - c. basis
 - d. commission fee
39. A tax deduction allowed for using up a natural resource by mining or drilling is called:
- a. depreciation
 - b. a depletion allowance
 - c. an investment tax credit
 - d. a tax shelter
40. Money that must be put up (deposited) in order for a person to buy an item is often called this type of money:
- a. collateral
 - b. premium
 - c. lien
 - d. good faith or earnest
41. A cooperative business usually returns most of its earnings to its members in the form of:
- a. stock dividends
 - b. patronage refunds
 - c. retained earnings
 - d. shares of stock
42. Financial, opportunity, cash, and economic are terms used to describe different types of the following for a farm firm:
- a. revenues
 - b. assets
 - c. liabilities
 - d. costs

43. Renting new machinery is essentially the same as:
- buying new machinery
 - borrowing new machinery
 - leasing new machinery
 - renting land
44. A grain farmer who has signed an agreement with an elevator to deliver corn in three months at a fixed price has entered into this type of a contract:
- forward price
 - backward price
 - basis
 - hedge
45. Hedgers usually take on this type of risk:
- cash price
 - premium
 - basis
 - none
46. What is the appropriate 'discount factor' to apply to money to be received two years from now to determine its present value if the relevant interest rate is 6%?
- 1.1236
 - 0.9433
 - 0.8900
 - 1.0600
47. A grain farmer who rents land and does so with a crop-share lease agreement agrees to pay the land owner which of the following?
- a fixed cash payment per acre
 - a variable cash payment per acre
 - a percentage of the harvested crop
 - a percentage of the profits per acre
48. Cash forward contracts normally reduces which of the following 'risks' for a producer:
- price
 - production
 - profit
 - basis

49. A partial budget is one that:
- a. is partially completed
 - b. evaluates the profitability of a business change
 - c. covers income and expenses for part of a year
 - d. excludes noncash expenses
50. If a farmer pays off a loan in full, one component of the loan payment is the amount borrowed which is also known as the:
- a. present value
 - b. interest
 - c. collateral
 - d. principal

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MULTIPLE CHOICE SECTION KEY

- 1. C
- 2. C
- 3. B
- 4. C
- 5. D
- 6. A
- 7. D
- 8. B
- 9. B
- 10. C
- 11. C
- 12. D
- 13. D
- 14. B
- 15. C
- 16. C
- 17. B
- 18. A
- 19. C
- 20. C
- 21. D
- 22. A
- 23. A
- 24. B
- 25. D

- 26. B
- 27. C
- 28. D
- 29. C
- 30. A
- 31. C
- 32. C
- 33. A
- 34. D
- 35. B
- 36. B
- 37. C
- 38. B
- 39. B
- 40. D
- 41. B
- 42. D
- 43. C
- 44. A
- 45. C
- 46. C
- 47. C
- 48. A
- 49. B
- 50. D

**2005 Iowa Vo Ag/FFA Farm Business Management
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PROBLEM SECTION (200 pts.)

Select the best answer (5 pts. each). Code your answers on the answer sheet provided. Be sure to erase completely any answers that you change.

Section A: Financial Statement Analysis (50 pts.) Using the attached ending net worth statement (balance sheet) and net farm income statement, answer the following questions.

1. What was this farm's market value net worth on Jan. 1, 2005?
 - a. \$1,569,649
 - b. \$2,573,260
 - c. \$985,611
 - d. \$1,188,152

2. The difference between market value net worth and cost value net worth is:
 - a. due to the amount of debt owed on fixed assets
 - b. due to inflation in fixed asset values
 - c. due to depreciation
 - d. Zero – they are the same

3. Using >market= values, the farm's debt to equity ratio is:

a. 2.61	c. .62
b. .38	d. 1.61

4. If this farm purchased 25 head of beef cows worth \$20,000 total, and they borrowed \$20,000 from the bank to buy them, the immediate impact on their net worth would be:
 - a. increase it by \$40,000
 - b. increase it by \$20,000
 - c. decrease it by \$20,000
 - d. no change

5. How much is this farm's 'working capital'?
 - a. \$559,927
 - b. \$642,938
 - c. -\$83,011
 - d. \$1,587,649

6. Which of the following expenditures would be included in a Net Farm Income Statement?
- a. purchase cost of a new pickup
 - b. principle portion of a loan payment made to FCS
 - c. cash rent paid to a landlord
 - d. all of the above
7. From the Net Farm Income statement, how much was this farm's 'accrued' interest expense for 2004?
- a. \$57,290
 - b. \$69,388
 - c. \$25,683
 - d. \$88,897
8. From the Net Farm Income Statement, calculate Gross Farm Revenue for the past year.
- a. \$754,312
 - b. \$603,476
 - c. \$467,932
 - d. \$890,168
9. What percent of this farm's Net Farm Income went toward increasing their net worth, i.e. retained earnings?
- a. 36 percent
 - b. 100 percent
 - c. 9 percent
 - d. 3 percent
10. Net Farm Income is usually calculated:
- a. on January 1 each year
 - b. from January 1 to December 31 each year
 - c. as a percentage value
 - d. monthly

Section B. Cash Flow Analysis (50 pts.)

Use the attached cash flow budget projection to answer the questions below.

11. How much cash does this farm expect to take in during the coming year?
- a. \$345,001
 - b. \$370,001
 - c. \$394,872
 - d. (\$24,871)

12. In how many bi-monthly periods is this farm projected to show a negative net cash flow in the coming year?
- a. one
 - b. two
 - c. three
 - d. four
13. In which period does this farm project the largest positive net cash flow?
- a. January-February
 - b. March-April
 - c. May-June
 - d. November-December
14. Approximately, how many dollars of operating loans will this farm need to borrow for the whole year?
- a. \$15,000
 - b. \$40,000
 - c. \$69,000
 - d. \$44,000
15. How is this farm's operating loan balance projected to change from the beginning to the end of the year?
- a. increase
 - b. not change
 - c. decrease
 - d. cannot tell
16. In which period does most of this farm's crop input expense fall?
- a. Jan.-Feb.
 - b. Mar.-April
 - c. May-June
 - d. Nov.-Dec.
17. What is the largest operating loan balance this farm expects to have at the end of any period?
- a. \$15,000
 - b. \$40,000
 - c. \$56,000
 - d. \$66,000
18. Which of the following expenditures is not included in a cash flow budget?
- a. wages paid to hired labor
 - b. purchase of equipment
 - c. principal payments on long-term loans
 - d. depreciation

19. A cash flow budget is most useful for analyzing which aspect of a farm's financial condition?
- a. solvency
 - b. liquidity
 - c. efficiency
 - d. profitability
20. A cash flow budget is least useful for:
- a. planning sales of products
 - b. projecting accrual net farm income
 - c. planning loan repayment schedules
 - d. projecting operating loan needs

Section C: Budgeting and Investment Analysis (50 pts.)

Refer to the attached "Finishing Yearling Steers" budget to answer questions 21 through 25.

21. How much profit per head is projected in the attached budget for Finishing Yearling Steers?
- a. \$930.47
 - b. \$59.49
 - c. \$45.49
 - d. \$73.49
22. What is the breakeven selling price needed to just pay for all variable costs?
- a. \$.70 per lb.
 - b. \$.71 per lb.
 - c. \$.75 per lb.
 - d. \$.90 per lb.
23. What is the maximum purchase price that could be paid for this steer and just breakeven (zero profit) if the steer is sold for \$.75 per pound?
- a. \$.90 per lb.
 - b. \$.98 per lb.
 - c. \$.84 per lb.
 - d. \$.96 per lb.
24. How much is the projected feed cost per pound of gain for this steer?
- a. \$.11 per lb.
 - b. \$.19 per lb.
 - c. \$.28 per lb.
 - d. \$.32 per lb.

25. If the cattle feeder is feeding corn grown on the same farm, the proper cost per bushel to use in the cattle enterprise budget is:
- the average market price the corn could have been sold for
 - the average cost of production per bushel on this farm
 - the USDA loan rate for corn
 - zero

Refer to the attached "No-till Drilled Soybeans" budget to answer questions 26 through 30.

26. How much is the estimated return over variable costs in this budget?
- \$300.00
 - \$184.59
 - \$115.41
 - \$2.6
27. What is the breakeven yield needed to cover all costs if the crop can be sold for \$6.00 per bushel?
- 46 bu. per acre
 - 50 bu. per acre
 - 27 bu per acre
 - \$5.46 per bushel
28. In the short run (one year) a farmer should expect to receive at least enough revenue to pay _____ costs in order to justify growing the crop.
- fixed
 - variable
 - total
 - harvesting
29. If the farmer borrowed \$100 per acre at 7% annual interest to pay for spring crop expenses on 500 acres, and had to repay the loan 9 months later, how much interest would he/she have to pay?
- \$3,500
 - \$50,000
 - \$5.25
 - \$2,625
30. Fixed costs for the combine include all except:
- repairs
 - interest
 - depreciation
 - insurance

Section D: Marketing (50 pts.)

31. Suppose it is December 2004 and Cy has just hedged some anticipated early May 2005 corn sales in the futures market. Which of the following has Cy most likely done?
- bought December '04 corn futures
 - bought May '05 corn futures
 - sold May '05 corn futures
 - sold May '05 corn call options
32. Suppose a grain elevator in January buys soybeans from a local soybean producer at 30 cents under the current May soybean futures. Which of the following simultaneous marketing actions is most likely to produce a gross storage return of 10 cents for the elevator for storing the soybeans from January to May?
- buy May soybean futures
 - sell May soybean futures
 - agree to deliver soybeans in May at 10 cents over the current January cash soybean price
 - agree to deliver soybeans in May at 20 cents under the current May soybeans futures
33. If Cy is a hog producer who in February has hedged some anticipated future (July) hog marketings by using July hog futures contracts, what kind of risk is Cy still bearing?
- cash price
 - basis
 - commission fee
 - futures price
34. Which of the following gives Cy the right to sell October cattle futures at a specified price?
- buy October cattle futures
 - sell October cattle futures
 - buy October cattle call options
 - buy October cattle put options
35. Cy is most likely to need to be involved with 1) analyses of customers' needs, 2) product promotion, and 3) target marketing for which of the following marketing alternatives?
- direct marketing
 - forward contracting
 - hedging with futures contracts
 - selling to the local cooperative

36. Last year, Cy sold milk to a local cheese plant. At the end of the year, Cy received a patronage refund from the cheese plant. Which of the following is most likely to be true?
- the cheese plant is a cooperative
 - the cheese plant is a family-owned business
 - the cheese plant is an investor-owned corporation
 - the cheese plant lost money during the year
37. Cy has sold 4,000 bushels of soybeans at a price of \$7.00 and another 6,000 bushels of soybeans at a price of \$7.40. Cy has 5,000 bushels of soybeans left to sell. What price will Cy need to receive on the last 5,000 bushels to result in an average overall selling price of \$7.20?
- \$7.20
 - \$7.25
 - \$7.12
 - \$7.22
38. What is the breakeven yield (bushels/acre) for Cy, a corn farmer, who has \$200 per acre operating costs, \$100 per acre fixed costs, and a selling price of \$1.70 per bushel?
- 117 bu.
 - 56 bu.
 - 58 bu.
 - 177 bu.
39. The cost to Cy of buying a corn put option is called the:
- basis
 - margin
 - premium
 - strike price
40. Which of the following is least likely to affect the profit-maximizing quantity of corn per acre Cy, a corn farmer, should produce?
- price of corn
 - fixed costs
 - variable fertilizer costs
 - variable chemical costs

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Problem Section Key

1. A Net Worth = total farm assets minus total farm liabilities
= \$2,573,260 - \$985,611
= \$1,587,649

2. B Inflation may cause the market value of fixed assets be higher than their cost (depreciated) value.

3. C Debt-to-equity ratio = total farm liabilities ÷ farm net worth
= \$985,611 ÷ \$1,587,649
= .62

4. D Total assets would increase by \$20,000 and total liabilities would increase by \$20,000, so net worth would not change.

5. C Working capital = current assets minus current liabilities
= \$559,927 - \$642,938
= -\$83,011

6. C Cash rent is an expense. Purchase cost of a pickup must be depreciated. Loan principle payments are merely a return of borrowed funds.

7. D Accrued interest expense = interest paid
+ ending accrued interest – beginning accrued interest
= \$57,290 + \$69,388 - \$37,781
= \$88,897

8. D Gross Farm Revenue = total cash income
+ ending adjustments – beginning adjustments
+ value of home used production

= \$754,312 + \$603,476 - \$467,932 + \$312
= \$890,168

9. A Percent retained earnings = change in net worth ÷ net farm income
= \$49,930 ÷ \$138,705
= 36%

10. B Net farm income is usually calculated for the calendar year.

11. B Cash taken in = total cash inflows
= \$370,001

12. D A negative net cash flow is projected in Jan.-Feb., Mar.-Apr., Jul.-Aug., and Sept.-Oct., 4 periods.
13. C The projected net cash flow is \$30,363 in May-June.
14. C The total new operating loan to be received is projected to be \$69,000.
15. A The operating loan balance is projected to increase from \$15,000 to \$40,000.
16. B Expenses for seed, fertilizer and lime and pesticides are projected to occur in March-April.
17. D The largest projected ending operating loan balance is \$66,000 in March-April.
18. D Depreciation is a noncash expense.
19. B A cash flow budget projects availability of funds, i.e. liquidity.
20. B Accrual net farm income takes into account beginning and ending inventories and depreciation as well as cash income and expenses.
21. C
- $$\begin{aligned} \text{Profit} &= \text{gross income minus total costs} \\ &= \$930.47 - \$884.98 \\ &= \$45.49 \end{aligned}$$
22. A Breakeven price for variable costs = total variable costs ÷ selling weight
- $$\begin{aligned} &= \$870.98 \div 1,250 \text{ lb.} \\ &= \$.70 \text{ per lb.} \end{aligned}$$
23. D Maximum purchase price = (gross income minus feed costs minus other variable costs minus fixed costs)
- $$\begin{aligned} &\div \text{purchase weight} \\ &= (\$930.47 - \$142.15 - \$53.88 - \$14.00) \div 750 \text{ lb.} \\ &= \$96 \text{ per lb.} \end{aligned}$$
24. C Feed cost per pound of gain = total feed cost ÷ (selling weight minus purchase weight)
- $$\begin{aligned} &= \$142.15 \div (1,250 \text{ lbs} - 750 \text{ lbs}) \\ &= \$142.15 \div 500 \text{ lbs.} \\ &= \$28 \text{ per lb.} \end{aligned}$$
25. A The 'opportunity cost' of the corn is the market price that could have been received.
26. B Return over variable costs = gross revenue minus variable costs
- $$\begin{aligned} &= \$300.00 - \$115.41 \\ &= \$184.59 \end{aligned}$$

27. A Breakeven yield = total costs ÷ expected selling price
 = \$272.89 ÷ \$6.00
 = 46 bushels per acre
28. B As long as variable costs are paid, profit is greater (or losses are smaller) than if no crop was produced.
29. D Interest to pay = amount borrowed per acre x annual interest rate x fraction of year borrowed x acres
 = \$100 x 7% x 9/12 year x 500 acres
 = \$2,625
30. A Repairs are a variable cost.
31. C To protect against possible corn price declines between January and May, Cy would sell May corn futures initially which could be bought back at a profit if prices do decline.
32. D A selling price of 20¢ under the May futures price is 10¢ greater than a buying price of 30¢ under the same May futures price.
33. B Cy's net price received will depend on what the basis turns out to be.
34. D Buying a put option is acquiring the right to sell at a specified price
35. A
36. A Patronage refunds are returns to users in proportion to use and are a unique method of profit distribution associated with cooperatives.
37. C If Cy averages \$7.20 on 15,000 bushels, Cy generates \$108,000 in total revenue (\$7.20 x 15,000). Cy has already generated \$72,400. Thus, Cy needs to have dollar sales of \$35,600 on the final 5,000 bu. (⇒ P = \$35,600/5,000 bu. = \$7.12).
38. D \$1.70 Q - \$200 - \$100 = 0
 ⇒ Q (breakeven) = \$300/\$1.70 = 176.5 bu.
39. C
40. B Profit max Q is where MR = MC. P is MR for price-taking farmer. MC is affected only by variable costs. Fixed costs do not directly enter into the MR = MC point.

Team Participation Event (100 pts.)

2005 Iowa Vo-Ag/FFA
Farm Business Management Career Development Event

As a group (or team), you are to collectively select the best answer to each question below (10 pts. each). Code your answers on the answer sheet provided (one answer sheet per team). Be sure to erase completely any answers that your team changes.

This activity is designed to test your ability as a group to 1) apply your knowledge of economic and business concepts to actual firm decisions, and 2) generalize and summarize the basic content and implications of economic articles and reports. The applications will focus on information summarized in selected publications previously cited as reference materials for this event.

In particular, this activity focuses on “value-added” enterprises and “direct marketing” alternatives that are options being considered and implemented by many Iowa farmers in order to improve the returns to their agricultural operations. Assume Julius Gallo is one such person who has decided in 2005 to add one acre of grapes (i.e. a vineyard) to the farm business. The Iowa State University Extension Service has prepared the attached “budget” which summarizes projected income and expenses for the vineyard through 2017. Refer to this budget and the assumptions below to answer questions when instructed to do so.

Some underlying assumptions in the “budget” are as follows:

- a) Grape production (tons per acre) will be 0 for years 2005-2007, 1.5 for 2008, 3.0 for 2009, and 3.5 for 2010 and each year thereafter.
 - b) An interest or lost opportunity charge is based on a 6% interest rate applied to carryover expenses.
 - c) Other expenses include a \$120 land rental charge; the remaining “other expenses” represent mainly harvest labor expenses.
-
1. What market price (per ton) of grapes is assumed by Julius Gallo (refer to budget and assumptions)?
 - a. \$100
 - b. \$1000
 - c. \$1500
 - d. \$3500

2. In what year is it projected for the vineyard to have generated more accumulated income than accumulated expenses for the first time (refer to budget and given assumptions)?
 - a. 2008
 - b. 2010
 - c. 2014
 - d. 2017

3. Which of the following would decrease the amount of time it would take for Julius to 'breakeven' with the vineyard?
 - a. decrease in the assumed interest rate
 - b. increase in the assumed land rental charge
 - c. decrease in the assumed market price received for the grapes
 - d. increase in the assumed harvest labor expenses

4. What is the primary economic motivation for grape producers like Julius Gallo wanting to initiate direct marketing efforts where the producers sell their grapes and grape products directly to consumers:
 - a. lower costs of production
 - b. less spoilage of grapes during marketing
 - c. higher grape prices for the producers
 - d. lower marketing costs

5. Interviewing in person a number of potential buyers of grapes simultaneously (same place, same time) to get their ideas and opinions about buying grapes direct from Julius and other producers is an example of this specific marketing research tool:
 - a. niche market
 - b. focus group
 - c. product branding
 - d. community supported agriculture

6. Gaining shelf space, establishing brand recognition, and creating an effective distribution channel are examples of potential direct marketing barriers that would most likely interfere with Julius and other grape producers being able to:
 - a. reach potential customers
 - b. maintain high production quality
 - c. cooperate with one another
 - d. identify customers' needs and wants

7. How Julius and other grape producers should 'position' their product(s) within the market is largely determined by:
 - a. the number of producers
 - b. the number of consumers
 - c. the relative strengths and weaknesses of the producers' products and business skills
 - d. the consumer demand

8. Information about potential grape-buying customers such as their age, education, occupation, income, family size, marital status, etc. is this type of data:
- primary
 - sociological
 - niche
 - demographic
9. Which of the following types of advertising would best enable grape producers such as Julius to reach a target audience?
- radio
 - direct mail
 - billboard advertising
 - newspaper
10. Which of the following promotional activities would most likely cost Julius and other grape producers the least amount of money in marketing their product direct?
- hiring sales people to sell the product
 - TV advertising
 - radio advertising
 - publicity

KEY – TEAM PARTICIPATION EVENT

2005 Iowa Vo Ag/FFA Farm Business Management Career Development Event

1. B The projected “income” figures in the table combined with the a) production assumptions imply a market price of \$1000 per ton is being used.
2. D See last column in budget. The first “positive” accumulated income number reported is for year 2017.
3. A Any increase in expected income or decrease in expected costs would decrease the time required to breakeven. A decrease in the assumed interest rate is the only item given to meet this requirement.
4. C See Ag Decision Maker C5-35, p. 1.
5. B See Ag Decision Maker C5-22, p. 1.
6. A See Ag Decision Maker C5-25, p. 2.
7. C See Ag Decision Maker C5-29, p. 2.
8. D See Ag Decision Maker C5-30, p. 2.
9. B See Ag Decision Maker C5-42, p. 1.
10. D See Ag Decision Maker C5-43, p. 1.

**Summary Report of Planned Vineyard
Income & Expense for Up to 13 Years**

Actual Year	Labor			Cost	Machinery			Material Cost	Other Expense Cost	Interest or Lost Opportunity Cost	Income	Accumulated Income or (Expense)
	Hours	Avg/Hr	Cost		Hours	Avg/Hr	Cost					
Pre-Plant Year												
Year 1	7.2	\$7.48	(\$53.89)	3.5	\$13.85	(\$48.46)	(\$306.47)	(\$126.00)	\$0.00	\$0.00	\$0.00	(\$534.82)
Year 2	212.0	\$7.02	(\$1,487.90)	31.5	\$9.30	(\$294.02)	(\$3,841.03)	(\$120.00)	(\$204.38)	\$0.00	\$0.00	(\$6,462.14)
Year 3	94.4	\$8.69	(\$820.35)	5.8	\$10.13	(\$58.74)	(\$230.36)	(\$120.00)	(\$425.81)	\$0.00	\$0.00	(\$8,137.39)
Year 4	56.5	\$8.69	(\$494.23)	10.5	\$9.98	(\$104.74)	(\$1,190.28)	(\$255.81)	(\$475.83)	\$1,500.00	\$1,500.00	(\$9,158.29)
Year 5	105.6	\$8.69	(\$917.53)	11.5	\$9.64	(\$110.90)	(\$1,190.28)	(\$391.63)	(\$554.04)	\$3,000.00	\$3,000.00	(\$9,322.66)
Year 6	109.8	\$7.97	(\$875.11)	11.8	\$9.78	(\$115.43)	(\$443.49)	(\$436.90)	(\$541.72)	\$3,500.00	\$3,500.00	(\$8,235.31)
Year 7	99.8	\$8.69	(\$867.29)	11.8	\$10.41	(\$122.78)	(\$451.58)	(\$436.90)	(\$476.71)	\$3,500.00	\$3,500.00	(\$7,090.56)
Year 8	108.9	\$7.97	(\$867.29)	11.8	\$8.87	(\$104.65)	(\$429.69)	(\$436.90)	(\$406.82)	\$3,500.00	\$3,500.00	(\$5,835.90)
Year 9	99.6	\$8.69	(\$865.72)	11.8	\$9.79	(\$115.10)	(\$448.82)	(\$436.90)	(\$392.38)	\$3,500.00	\$3,500.00	(\$4,534.83)
Year 10	99.8	\$8.69	(\$867.29)	11.8	\$9.78	(\$115.43)	(\$429.69)	(\$436.90)	(\$253.80)	\$3,500.00	\$3,500.00	(\$3,137.93)
Year 11	99.8	\$8.69	(\$867.29)	11.8	\$9.78	(\$115.43)	(\$451.58)	(\$436.90)	(\$170.65)	\$3,500.00	\$3,500.00	(\$1,679.77)
Year 12	99.8	\$8.69	(\$867.29)	11.8	\$9.78	(\$115.43)	(\$429.69)	(\$436.90)	(\$82.50)	\$3,500.00	\$3,500.00	(\$111.57)
				11.8	\$9.78	(\$115.43)	(\$451.58)	(\$436.90)	\$0.00	\$3,500.00	\$3,500.00	\$1,517.23

Net Worth Statement

Name **FFA Farm**

Date **01/01/05**

Farm Assets	Cost Value	Market Value	Farm Liabilities	Market Value
			Accounts payable (Sched. N)	0
Checking and savings accounts	48,279	48,279	Farm taxes due (Sched. O)	0
Crops held for sale/feed (Sched. A)	202,011	202,011	Current notes and credit lines (Sched. P)	573,550
Investment in growing crops(Sch. B)	0	0	Accrued interest - short (Sched. P)	45,263
Commercial feed on hand (Sch. C)	0	0	- fixed (Sched. Q)	24,125
Prepaid expenses (Sched. D)	0	0		
Market livestock (Sched. E)	305,385	305,385	Due in 12 months - fixed (Sched. Q)	0
Supplies on hand (Sched. F)	4,252	4,252		
Accounts receivable (Sched. G)	0	0	Other current liabilities	
Other current assets		0		
		0		
Total Current Assets	\$559,927	\$559,927	Total Current Liabilities	642,938
Unpaid coop. distributions(Sch. H)	0	0	Notes and contracts, remainder (Sched. Q)	342,673
Breeding livestock (Sched. I)	96,080	96,080	Machinery	
Machinery & equipment (Sched. J)	159,729	159,729	Land	
Buildings/improvements (Sched. K)	192,604	192,604		
Farmland (Sched. L)	1,165,423	1,564,920		
Farm securities, certificates(Sch. M)	0	0		
Other fixed assets		0	Other fixed liabilities	
Total Fixed Assets	1,613,836	2,013,333	Total Fixed Liabilities	342,673
a. Total Farm Assets	2,173,763	\$2,573,260	b. Total Farm Liabilities	\$985,611
c. Farm Net Worth			Working Capital	
d. Farm Net Worth Last Year	1,169,829	1,569,326	Current Asset-to-Debt Ratio	
e. Change in Farm Net Worth (c - d)	49,930	\$49,930	Total Debt-to-Asset Ratio	

Net Farm Income Statement

Name

FFA Farm

Year

2004

Income					
Cash Income		Income Adjustments		Ending	Beginning
Sales of livestock bought for resale		Crops held for sale or feed (Sched. A)		202,011	150,603
Sales of market livestock, grain, etc.	727,630	Market livestock (Sched. E)		305,385	221,929
Cooperative distributions paid		Accounts receivable (Sched. G)		0	0
Agricultural program payments	16,452	Unpaid coop. distributions (Sched. H)		0	0
Crop insurance proceeds		Breeding livestock (Sched. I)		96,080	95,400
Custom hire income	1,358	Subtotal of Adjustments		603,476	467,932
Other cash income	371			b	c
Sales of breeding livestock	8,501	d. Value of Home Used Production			312
a. Total Cash Income	\$754,312	e. Gross Farm Revenue (a + b - c + d)			

Expenses					
Cash Expenses		Expense Adjustments		Beginning	Ending
Car and truck expenses	0	Investment in growing crops (Sched. B)		0	0
Chemicals		Commercial feed on hand (Sched. C)		0	0
Conservation expenses		Prepaid expenses (Sched. D)		0	0
Custom hire	17,388	Supplies on hand (Sched. F)		4,502	4,252
Employee benefits				Ending	Beginning
Feed purchased	220,754	Accounts payable (Sched. N)		0	0
Fertilizer and lime	13,016	Farm taxes due (Sched. O)		0	0
Freight, trucking		Accrued interest (Sched. P, Q)		69,388	37,781
Gasoline, fuel, oil	11,988	Subtotal of Adjustments		73,890	42,033
Insurance	\$10,112			g	h
Interest paid	57,290	i. Depreciation (Sched. J, K)			39,149
Labor hired	16,874	j. Gross Farm Expenses (f + g - h + i)			\$751,463
Pension and profit-share plans					
Rent or lease payments	2,415	k. Net Farm Income From Operations (e - j)			\$138,705
Repairs, maintenance	10,724				
Seeds, plants	38,783	l. Sales of Farm Capital Assets			0
Storage, warehousing		m. Cost Value of Items Sold (Sched. J, K, L)			0
Supplies purchased		n. Capital Gains or Losses (l - m)			0
Taxes (farm)	13,202				
Utilities	11,773	o. Net Farm Income (k + n)			\$138,705
Veterinary fees, medicine, breeding	39,459				
Other cash expenses	6,323				
Livestock purchased	210,356				
f. Total Cash Expenses	\$680,457				

CASH FLOW BUDGET

Name:

EXAMPLE

CASH INFLOWS

	Quantity	Price	Whole Year	January-February	March-April	May-June	July-August	September-October	November-December	
Income from sales										
Com carryover bushels	25,000	bu.								
Com needed for feed bushels	20,875	bu.								
Carryover com to sell (+) or buy(-)	4,125	bu.	\$2 50	10,313	10,313					
Soybeans carryover bu. to sell	2,200	bu.	\$6 00	13,200	13,200					
Com production from this year	29,000	bu.								
Com to sell, this year's crop	10,000	bu.	\$2 40	24,000					24,000	
Soybean production from this yr.	9,000	bu.								
Soybeans to sell, this year's crop	7,000	bu.	\$5.75	40,250					40,250	
Cattle sales	250	hd.	\$0.65	203,125		203,125				
Hog sales, beginning inventory	214	hd.	\$0 45	25,038	9,000	9,000	7,038			
Hog sales, second half	225	hd.	\$0 45	26,325			9,000	9,000	8,325	
Sow and boar sales	14	hd.	\$0 25	1,750			1,750			
Early hog sales	20	hd.	\$1 00	1,000					1,000	
				345,001						
Capital asset sales										
Sale of machinery set				0						
Sale of combine				0						
New loans to receive										
New machinery loan				25,000	25,000					
New combine loan				0						
New loan against farmland				0						
Total Cash Inflows				370,001	47,200	19,313	210,163	10,750	9,000	73,575

CASH OUTFLOWS

	Whole Year	January-February	March-April	May-June	July-August	September-October	November-December
Operating Expenses							
Seed	10,400		10,400				
Fertilizer and lime	15,400		15,400				
Pesticides	11,000		11,000				
Crop insurance	1,600					1,600	
Drying fuel	4,400					4,400	
Fuel and oil, machinery repairs for spring	8,400		8,400				
Harvesting variable costs	10,000					10,000	
Purchased feed	21,000	5,000	5,000	5,000	2,000	2,000	2,000
Health and veterinary	3,250	500	550	550	550	550	550
Marketing costs	5,500	1,000	1,000	1,000	1,000	1,000	500
Fixed Costs							
Cash rent	0						
Property taxes	2,222		1,111			1,111	
Insurance on buildings	1,200						1,200
Building repairs	3,000	500	500	500	500	500	500
Utilities	1,500	250	250	250	250	250	250
Hired labor	9,000	1,500	1,500	1,500	1,500	1,500	1,500
Grain storage							
Purchases of Capital Assets							
Machinery set	42,500	42,500					
Combine	0						
Loan Payments							
Feeder cattle loan principal payment	180,000			180,000			
Machinery principal payment	12,000						12,000
Combine principal payment	6,000						6,000
Land principal payment	20,000						20,000
Interest to pay	11,000			6,000			5,000
Nonfarm expenditures							
Family living	30,000	5,000	5,000	5,000	5,000	5,000	5,000
Income taxes	5,500		5,500				
Total Cash Outflows	394,872	56,250	65,611	179,800	10,800	27,911	54,500
Net Cash Flow	(24,871)	(9,050)	(46,298)	30,363	(50)	(18,911)	19,075

SUMMARY

	Whole Year	January-February	March-April	May-June	July-August	September-October	November-December
Net Cash Flow	(24,871)	(9,050)	(46,298)	30,363	(50)	(18,911)	19,075
+Beginning cash balance	5,562	5,562	1,558	1,273	1,964	1,930	1,035
*Interest earned on cash balance	111	46	13	11	16	18	9
+New operating loan received	69,000	5,000	46,000			18,000	
-Repay operating loan	44,000			28,000			16,000
-Interest paid, on oper loan bal.	3,883	0	0	1,683	0	0	2,200
=Ending cash balance	1,919	1,558	1,273	1,964	1,930	1,035	1,919

OPERATING LOAN BALANCE

Beginning Balance	15,000	15,000	20,000	66,000	38,000	38,000	56,000
Ending Balance	40,000	20,000	66,000	38,000	38,000	56,000	40,000

FINISHING YEARLING STEERS (one head)

	Total
Income	
Sales income	1250 lbs. X \$ 0.75 per lb. = \$937 50
Death loss	0.75 percent X \$937 50 income = <u>-\$7.03</u>
Gross Income	\$930 47
Variable Costs	
Feeder cost	750 lbs. X \$0.90 per lb. = \$675 00
Feed Costs	
Corn	\$1.75 per bu. X 63 bu. = \$110 25
Supplement & minerals	\$0.12 per lb. X 120 lbs. = \$14.40
Alfalfa - brome hay	\$50 per ton X 0.35 tons = <u>\$17.50</u>
Total Feed Costs	\$142 15
Veterinary & medical	\$8 00
Machinery & equipment	\$7 00
Marketing & miscellaneous	\$16.00
Other	\$0 00
Interest on feed & other costs	9 percent X 160 days = \$6 83
Labor	\$8.00 per hr. X 2 hours = <u>\$16.00</u>
Total Other Variable Costs	\$53.83
Total Variable Costs	\$870 98
Income Over Variable Costs	\$59 49
Fixed Costs	
Machinery, equipment, & housing	\$14 00
Total All Costs	\$884 98

No-till drilled soybeans following corn

Revenue

Yield (bushels per acre)	50		
Selling price, \$ per bushel	\$ 6.00		
Gross revenue			\$ 300.00

Costs per Acre

	Fixed	Variable	Total
Preharvest Machinery			
Drill	\$9.28	\$3.15	\$12.43
Spray	\$1.10	\$0.59	\$1.69
Total	\$10.38	\$3.74	\$14.12
Seed, Chemicals, etc.			
Seed	---	\$28.00	\$28.00
<i>cost per 50 pound unit</i>	\$20.00		
<i>number of units</i>	1.4		
Phosphate	---	\$9.45	\$9.45
<i>price per pound</i>	\$0.27		
<i>pounds per acre</i>	35		
Potash	---	\$9.80	\$9.80
<i>price per pound</i>	\$0.14		
<i>pounds per acre</i>	70		
Lime (annual cost)	-----	\$6.00	\$6.00
Herbicide	---	\$35.00	\$35.00
Crop insurance	---	\$3.00	\$3.00
Miscellaneous	-----	\$7.00	\$7.00
Interest on preharvest variable costs	---	\$6.46	\$6.46
<i>length of period (months)</i>	8		
<i>interest rate</i>	9.5%		
Total	-----	\$104.71	\$104.71
Harvest Machinery			
Combine	\$11.65	\$5.81	\$17.46
Haul	\$0.90	\$0.90	\$1.80
Handle	\$0.55	\$0.25	\$0.80
Total	\$13.10	\$6.96	\$20.06
Labor			
	\$14.00	---	\$14.00
<i>Hours</i>	1.75		
<i>Rate per hour</i>	\$8.00		
Land			
Cash rent equivalent	\$120.00	---	\$120.00
Total Fixed, Variable and All Costs			
Per acre	\$157.48	\$115.41	\$272.89
Per bushel	\$3.15	\$2.31	\$5.46