2019 Iowa Farm Business Management Career Development Event

INDIVIDUAL EXAM (150 pts.)
Select the BEST answer to each of the 75 questions to follow (2 pts. ea.). Code your answers on the answer sheet provided. Be sure to erase completely any answers that you change. You have 120 minutes (maximum) to complete this exam. Section A (#1 - #25) contains 25 questions over 'Principles of Economics and Management'. Section B (#26 – #50) contains 25 questions over 'Financial Statements and Records Analysis'. Section C (#51 - #75) contains 25 questions over 'Marketing and Risk Management'.

Section A (#1 - #25). Principles of Economics and Management

1. Planning, organizing, and controlling are typically listed as functions of what?
   a. Economics
   b. Management
   c. Marketing
   d. Finance

2. Federal income tax rates in the U.S. increase with levels or brackets of income. What economic term is used to describe this type of tax rate structure?
   a. Progressive
   b. Regressive
   c. Autocratic
   d. Democratic

3. In the market for oranges, what determines the market price?
   a. The quantity of oranges produced
   b. The quantity of oranges bought
   c. The price of grapefruit
   d. The supply of oranges and the demand for oranges

4. Gary owns a house with an assessed value of $150,000 and an estimated market value of $160,000. If the property tax rate on his house is 2%, how much will Gary have to pay in property tax on his house for this year?
   a. (.02)(160,000 – 150,000)
   b. (.02)(160,000 + 150,000)
   c. (.02)(160,000)
   d. (.02)(150,000)

5. A tax-deductible expense:
   a. Reduces taxable income
   b. Increases taxable income
   c. Has no impact on taxable income
   d. Increases taxes owed

6. Based on the economic concept of 'time value of money', $1 today:
   a. is worth less than $1 five years from now
   b. is worth the same as $1 five years from now
   c. is worth more than $1 five years from now
   d. may be worth more or less than $1 five years from now and it will depend on the interest rate

7. The foregone rental income to a farmer who operates his own farm instead of renting it would be known as:
   a. a fixed cost
   b. hidden income
   c. a liability
   d. an opportunity cost

8. In economics, the term 'risk taker' is often used to describe what?
   a. An irrational person
   b. An entrepreneur
   c. A hedger
   d. Anyone who buys a product in a market

9. The part of a loan that is repaid during a year is what type of payment?
   a. Principal
   b. Interest
   c. Mortgage
   d. Installment

10. Net worth on a balance sheet = total assets less _______?
   a. Equity
   b. Debt
   c. Total liabilities
   d. Accrued expenses

11. What are the two general types of inputs used in a production process?
   a. Fixed and variable
   b. Liquid and non-liquid
   c. Short run and long run
   d. Those supplied and those demanded

12. A current asset is one that:
   a. Is currently being used by a business firm
   b. Can be converted into cash fairly easily within one year
   c. Has been paid for by the business owner
   d. Has been purchased within the past year by the business owner

13. The ability to convert assets into cash is known as:
   a. Liquidity
   b. Solvency
   c. Profitability
   d. Elasticity

14. A cash flow statement shows:
   a. Assets and liabilities
   b. Cash income and cash expenses
   c. Cash assets
   d. NOT a basic, business firm financial statement

15. If a diversified farming operation raises and sells hogs, among other commodities, a detailed listing of revenues and expenses for just the part of the farming operation dealing with the hogs would be called what?

a.	A cash flow budget	c.	A whole farm budget
b.	An enterprise budget	d.	An income statement

16. Which of the following is often considered to be an advantage of the sole proprietorship form of business?

a.	limited liability	c.	simplicity
b.	tax savings	d.	business life continuity

17. Postponing the reporting of taxable income to next year is most likely to be economically advantageous for Ellen if she:
    a. Expects to be in a lower income tax bracket next year
    b. Does not have the time to file her income taxes this year
    c. Wants to remodel the kitchen in her house
    d. All of the above

18. Assume Leon is repaying a loan obtained to buy a new pickup for his farming operation with six equal annual loan payments. Which of the following is most likely true regarding those payments?
    a. the total value of each payment is tax deductible
    b. a greater proportion of the 1st payment will be interest than for the 6th payment
    c. each payment will contain an equal total dollar interest charge
    d. Leon will pay less interest over the life of the loan than if he had taken out a 4-year loan

19. If Hidden Valley Farms is breaking even, they are operating where:
    a. cash receipts = cash expenses
    b. marginal revenue = marginal cost
    c. total revenues = total costs
    d. assets = liabilities

20. Prorating the cost of a capital asset over the useful life of that asset for income tax purposes is called:
    a. Capital budgeting
    b. Figuring out depreciation
    c. Itemizing expenses
    d. Spreading fixed costs over larger units of output

21. Interest expense owed would show up on a balance sheet as the following?
    a. Accrued interest expense
    b. A current asset
    c. A long-term liability
    d. A non-current liability

22. If Green Acres is maximizing its profits, it will most likely be doing which of the following?
    a. Maximizing output
    b. Using the least costly combination of resources for producing the desired level of output
    c. Minimizing total costs
    d. Operating where its average cost of production is at its lowest

23. Measures of the ability of Blue Sky Acres to pay off long-term debt obligations are typically these types of financial ratios:
    a. current ratios
    b. profitability ratios
    c. liquidity ratios
    d. solvency ratios

24. If it is noted that lemon prices are historically high despite the fact that per capita consumption of lemons has been decreasing for many years, what is the most likely 'economic' explanation of the higher lemon prices?
    a. The demand for lemons has decreased
    b. The supply of lemons has decreased
    c. The supply of lemons has increased
    d. There are more substitutes to lemons available

25. Which of the following is a tax-deductible expense?
    a. Loan principal repayments
    b. Interest payments on a credit card used for personal expenses
    c. Machinery rental fees
    d. All of the above

Section B. Financial Statements and Records Analysis. **(Questions #26-#50)**
Use the attached <u>net worth statement</u> (balance sheet) and <u>net farm income statement</u> to answer questions #26-40.

26. How much **working capital** did FFA Farm have as of December 31, 2018?
    a. $569,027
    b. $301,824
    c. $267,203
    d. $2,335,417

27. How much was FFA Farm's **current ratio** as of December 31, 2018?
    a. 1.89
    b. 0.53
    c. 3.51
    d. 0.17

28. How much was FFA Farm’s **net worth** as of December 31, 2018?
   a. $2,304,580
   b. $3,265,432
   c. $2,335,414
   d. $ 267,203

29. By what percent did FFA Farm’s **net worth change** in 2018?
   a. 1.34%
   b. 6.54%
   c. 2.59%
   d. -1.56%

30. What was FFA farm’s **debt-to-equity ratio** as of December 31, 2018?
   a. 28.5%
   b. 251%
   c. 71.5%
   d. 39.8%

31. What proportion of FFA Farm's assets could be converted to cash in the next 12 months?
   a. 6.5%
   b. 32.4%
   c. 17.4%
   d. 79.8%

32. How many total $ of principal did FFA Farm owe as of December 31, 2018, in loans?
   a. $301,824
   b. $628,194
   c. $930,018
   d. $784,940

33. How much was FFA Farm’s **cash net farm income** in 2018?
   a. $881,236
   b. $779,494
   c. $101,742
   d. $84,950

34. How much was FFA Farm’s **accrual net farm income** in 2018 (= gross farm revenue – gross farm expenses)?
   a. $956,820
   b. $881,236
   c. $101,742
   d. $84,950

35. What was FFA Farm's **(net) value of farm production** last year (= gross farm revenue – livestock and feed expenses)?
   a. $881,236
   b. $956,820
   c. $798,010
   d. $ 84,950

36. How did FFA Farm's accrual adjustment for crops held for sale or inventory affect their accrual net farm income last year?
   a. It increased accrual net farm income
   b. It decreased accrual net farm income
   c. It did not change accrual net farm income
   d. Need more information

37. How much was FFA Farm's **accrual interest expense** last year?
   a. $148,038
   b. $139,736
   c. $84,700
   d. 93,002

38. What individual cash expense item accounted for 17.926% of total cash expenses for 2018?
   a. Feed purchases
   b. Rent or lease payments
   c. Fertilizer and lime
   d. Interest payments

39. For every dollar in total assets, how many dollars of total debt does the FFA farm have?
   a. 0.233
   b. 0.285
   c. 0.404
   d. 0.530

40. If the FFA Farm consists of 200 acres, what is the dollar market value of that land per acre?
   a. 2,845
   b. 8,848
   c. 13,482
   d. 16,327

Use the attached <u>cash flow budget</u> projection to answer questions #41-50.

41. In which period does FFA Farm expect to have its largest net cash flow <u>deficit</u>?
   a. March-April
   b. January-February
   c. November-December
   d. July-August

42. When does FFA farm expect to pay real estate taxes?
    a. March-April
    b. September-October
    c. March-April and September-October
    d. November-December

43. What are FFA Farm's projected total cash inflows for the entire year?
    a. $1,236,274
    b. $(7,214)
    c. $953,010
    d. $945,796

44. How much operating capital does FFA Farm need to borrow in January-February in order to have a cash balance of $2,000 at the end of February?
    a. $13,731
    b. $15,731
    c. $ 3,655
    d. $12,076

45. In how many bi-monthly periods does FFA farm expect to have a positive net cash flow?
    a. none
    b. two
    c. three
    d. five

46. How much is FFA Farm's projected accrual net farm income for next year?
    a. $(7,214)
    b. $945,796
    c. $ 30,544
    d. Cannot tell from this budget

47. In May-June FFA Farm anticipates trading for a new machinery item. How much will they finance from their own resources?
    a. $45,000
    b. $25,000
    c. $20,000
    d. $65,000

48. If FFA Farm borrows $52,000 against their operating loan in the coming year, and pays back $40,000 plus interest in December, how much will their outstanding operating loan balance be at the end of the year?
    a. $30,554
    b. $18,554
    c. $12,000
    d. $42,554

49. What was the largest source of cash inflow for FFA Farm for the year?
   a. crop sales c. livestock sales
   b. government payments d. capital asset sales

50. What was the FFA Farm's 'net cash flow' for the year?
   a. positive
   b. negative

Section C (#51 - #75). Marketing and Risk Management

51. A futures contract gives the seller:
   a. an obligation to buy the corresponding cash commodity at the price sold
   b. an obligation to sell the corresponding cash commodity at the price sold
   c. an option but not an obligation to sell the corresponding cash commodity at the price sold
   d. b and c as there is no difference between an option and an obligation

52. A business owned by its customers or patrons is called what?
   a. an LLC c. a joint venture
   b. a non-profit organization d. a cooperative

53. Revenue per head of cattle marketed by Acme Feeders is an example of:
   a. marginal revenue c. average revenue
   b. total revenue d. profit

54. Corn sold by U.S. sellers to Japanese buyers would be regarded as:
   a. imports for the U.S. c. exports for Japan
   b. net exports for the U.S. d. exports for the U.S.

55. Normally a broker will require a hedger to deposit with them a certain amount of money in order to protect against a decline in the value of their account or hedged position due to adverse moves in the market price. What is this deposit normally called?
   a. margin money c. commission fee
   b. reserve requirement d. hedge premium

56. The typical general 'risks' that Sweet Pea Acres faces and should manage in producing peas are which of the following?
   a. Price and production c. Cash and non-cash
   b. Organizational and operational d. Legal and financial

57. In marketing, 'basis' is the difference between what?
   a. A futures price and a cash price
   b. A projected price and an actual price
   c. Two current cash prices
   d. Two current futures prices

58. Which of the following actions is intended to limit the price paid for corn fed to feeder cattle?
  a. Buy a put option
  b. Sell a call option
  c. Sell a futures contract
  d. Buy a call option

59. A "premium" is an economic term associated with the price paid for:
  a. an insurance policy
  b. an option
  c. a margin call
  d. a and b

60. Everything else the same, an increase is an options strike price will:
  a. increase the premium on a call option
  b. increase the premium on a put option
  c. have no impact on a call option premium
  d. increase the commission fee for trading an option

61. Assume this past year, Our Friendly Co-op issued Gene a $6,000 cash patronage refund and a $24,000 non-cash patronage refund. How much of the refund will Gene have reported as taxable income assuming the co-op claims all $30,000 of the refund as a deductible expense?
  a. $0
  b. $6,000
  c. $24,000
  d. $30,000

62. If Piggly Wiggly has a "long" futures position in the live hog market, they have:
  a. bought hog futures
  b. sold hog futures
  c. bought more hog futures than they have sold
  d. a and b

63. Dilly Dally Farms is adding a new enterprise to the operation. This is an example of which of the following?
  a. Specialization
  b. Diversification
  c. Dilly dallying around
  d. Consolidation

64. A strike price is what?
  a. The market equilibrium price
  b. The premium paid for the purchase of an option
  c. The price at which a put option buyer can sell the underlying futures contract
  d. The desired wage by workers who are on strike

65. If a corn farmer has hedged some future corn sales with the futures market, what should they do if they are a true hedger when they sell their corn in the cash market in the future?
  a. Let the corn futures contract expire
  b. Buy back the futures contracts sold
  c. Sell the futures contracts initially bought
  d. Purchase an offsetting call option

66. Lisa has agreed to sell 5,000 bushels of soybeans to her nearby elevator on July 1 at a specified price. What is this type of marketing arrangement called?

a. A cash forward contract
b. A traditional hedged sale
c. A basis contract
d. An options contract

67. Angus Farms has hedged with futures contracts some future cattle sales. The price Angus Farms expects to receive would be most impacted by which of the following?

a. a bigger than expected decline in cash cattle prices
b. a bigger than expected decline in cattle futures prices
c. a bigger than expected basis
d. all of the above

68. If a corn farmer has total fixed costs per acre of $200, variable costs of $3 per bushel, and the price of corn is $4 per bushel, what is the farmer's breakeven yield per acre (in bushels)?

a. 50
b. 66.67
c. 28.57
d. 200

69. Which of the following is most likely to decrease in value when Green Acres experiences an increase in its yield of green beans per acre?

a. total costs
b. value per acre of land in the operation
c. average fixed costs per pound of green beans produced
d. the price of green beans

70. A soybean farmer has soybeans stored in on-farm storage bins. The farmer has two pricing options (per bushel): A = sell today for $8.75 or B = sell in two years for $9.00. Which of the following is true about the farmer's 'best' pricing and marketing strategy?

a. It depends on storage costs and interest rates
b. It depends on what it cost to produce those soybeans
c. Sell in two years because the price is higher
d. Sell today because the price two years from now cannot be guaranteed

71. Which of the following would most likely decrease the breakeven level of output for Super Fresh Eggs Inc.?

a. an increase in the price they receive for their eggs
b. a decrease in the price they receive for their eggs
c. an increase in feed costs for their operation
d. their laying hens get sick with a 'bird' flu

72. Longview Farms needs to buy corn next month for their cattle feeding enterprise as they don't have enough corn on hand to meet those needs. What corn market 'position' does Longview Farms have?

a. Long cash
b. Short cash
c. Short futures
d. Bullish

73. Ignoring commission fees, if Joni has hedged some of her future soybean sales having sold Nov soybean futures at $8.80 per bushel, what net price will she receive?
   a. $8.80 regardless of the basis in Nov.
   b. $9.20 if in Nov. the basis = $0.40
   c. $8.40 if in Nov. the basis = $0.40
   d. it will depend on the cash price of soybeans in Nov.

74. What average price (per pound) did Jiffy receive for their peanuts sold this past year if they sold 50% of their production at $0.20, 30% of their production at $0.25, and 20% of their production at $0.30?
   a. 23.5
   b. 24.5
   c. 25.5
   d. 26.5

75. If Farmer Jones is projected to have revenues of $400,000 and total costs of $300,000, what would be the percentage increase in their profit (i.e. from $100,000) if they did a 'better' job of marketing so as to increase their revenues by 10% AND decrease their total costs by 10%?
   a. 10.0
   b. 20.0
   c. 40.0
   d. 70.0

INDIVIDUAL EXAM KEY

Section A. Principles of Economics and Management (#1 – 25)

1. B
2. A
3. D
4. D Property taxes are based on 'assessed' property value.
5. A
6. C
7. D
8. B
9. A
10. C
11. A
12. B
13. A
14. B
15. B
16. C
17. A
18. B
19. C
20. B
21. A
22. B
23. D
24. B
25. C

Section B. Financial Statements and Records Analysis (#26 – 50)

26. How much working capital did FFA Farm have as of December 31, 2018?
a. $569,027
b. $301,824
***c. $267,203 (569,027 – 301,824)**
d. $2,335,417

27. How much was FFA Farm's current ratio as of December 31, 2018?
***a. 1.89 (569,027 / 301,824)**
b. 0.53
c. 3.51
d. 0.17

28. How much was FFA Farm's net worth as of December 31, 2018?
a. $2,304,580
b. $3,265,432
***c. $2,335,414 (3,265,432 – 930,018)**
d. $ 267,203

29. By what percent did FFA Farm's net worth change in 2018?
***a. 1.34% (2,335,414 – 2,304,580) / 2,304,580**
b. 6.54%
c. 2.59%
d. $30,864

30. What was FFA farm's debt-to-equity ratio as of December 31, 2018?
a. 28.5%
b. 251%
c. 71.5%
***d. 39.8% (930,018 / 2,335,414)**

31. What proportion of FFA Farm's assets could be converted to cash in the next 12 months?
a. 6.5%
b. 32.4%
***c. 17.4% (569,027 / 3,265,432)**
d. 79.8%

32. How many total $ of principal did FFA Farm owe as of December 31, 2018, in loans?
a. $301,824
b. $628,194
c. $930,018
***d. $784,940 (84,293 + 72,483 + 628,194)**

33. How much was FFA Farm's cash net farm income in 2018?
a. $881,236
b. $779,494
***c. $101,742 (881,236 – 779,494)**
d. $84,950

34. How much was FFA Farm's accrual net farm income in 2018 (= gross farm revenue – gross farm expenses)?
a. $956,820
b. $881,236
c. $101,742
***d. $84,950 (956,820 – 871,870)**

35. What was FFA Farm's (net) value of farm production last year (= gross farm revenue – feed and livestock expenses)?
a. $881,236
b. $956,820
***c. $798,010 (956,820 – 137,210 – 21,600) (gross farm revenue – feed & livestock purchases)**
d. $ 84,950

36. How did FFA Farm's accrual adjustment for crops held for sale or inventory affect their accrual net farm income last year?
a. It increased accrual net farm income
***b. It decreased accrual net farm income (212,899 vs 223,215)**
c. It did not change accrual net farm income
d. Need more information

37. How much was FFA Farm’s accrual interest expense last year?
***a. $148,038 (139,736 +93,002 – 84,700)**
(cash interest paid + ending accrued – beginning accrued)
b. $139,736
c. $84,700
d. 93,002

38. What individual cash expense item accounted for 17.926% of total cash expenses for 2018?
a. Feed purchases
b. Rent or lease payments
c. Fertilizer and lime
***d. Interest payments (.17926) x (779,494) = 139,732 = interest payments**

39. For every dollar in total assets, how many dollars of total debt does the FFA farm have?
a. 0.233
***b. 0.285 = (total liabilities / total assets) = (930,018 / 3,265,432) = 0.285**
c. 0.404
d. 0.530

40. If the FFA Farm consists of 200 acres, what is the dollar market value of that land per acre?
a. 2,845
***b. 8,848 (= farmland market value / 200) = (1,769,600 / 200) = 8,848**
c. 13,482
d. 16,327

41. In which period does FFA Farm expect to have its largest net cash flow deficit?
***a. March-April (-38,567)**
b. January-February
c. November-December
d. July-August

42. When does FFA Farm expect to pay real estate taxes?
a. March-April
b. September-October
***c. March-April and September-October (8,000 each period)**
d. November-December

43. What are FFA Farm's projected total cash inflows for the entire year?
a. $1,236,274
b. $(7,214)
c. $953,010
***d. $945,796**

44. How much operating capital does FFA Farm need to borrow in January-February in order to have a cash balance of $2,000 at the end of February?
a. $13,731
b. $15,731
c. $ 3,655
***d. $12,076 (negative ending cash balance of 10,076 w/o borrowing + 2,000)**

45. In how many bi-monthly periods does FFA farm expect to have a positive net cash flow?
a. none
b. two
***c. three (May-June, Sept.-Oct., Nov.-Dec.)**
d. five

46. How much is FFA Farm's projected accrual net farm income for next year?
a. $(7,214)
b. $945,796
c. $ 30,544
***d. Cannot tell from this budget (cash flow budget does not project accrual NFI)**

47. In May-June FFA Farm anticipates trading for a new machinery item ($45,000). How much will they finance with new loans?
a. $45,000
b. $25,000
***c. $20,000**
d. $65,000

48. If FFA Farm borrows $52,000 against their operating loan in the coming year, and pays back $40,000 plus interest in December, how much will their outstanding operating loan balance be at the end of the year?
a. $30,554
b. $18,554
c. $12,000
***d. $42,554**

49. What was the largest source of cash inflow for FFA Farm for the year?
a. crop sales
b. government payments
***c. livestock sales (= 574,560)**
d. capital asset sales

50. What was the FFA Farm's 'net cash flow' for the year?
a. positive
b. negative (-7,214)

<u>Section C. Marketing and Risk Management (#51 – 75)</u>

51.	B	
52.	D	
53.	C	
54.	D	
55.	A	
56.	A	
57.	A	
58.	D	
59.	D	
60.	B	
61.	D	Patronage refunds (cash and noncash) are subject to income tax once by either the member or the co-op. If the co-op is deducting the refunds, they are passing the tax obligation on to the member for the entire refund.
62.	A	
63.	B	
64.	C	
65.	B	
66.	A	
67.	C	
68.	D	TR = TC => 4Q = 200 + 3Q => Q = 200
69.	C	
70.	A	
71.	A	
72.	B	
73.	C	
74.	A	(.5)(20) + (.3)(25) + (.2)(30) = 10 + 7.5 + 6 = 23.5
75.	D	new revenue – new costs = new profit (1.10)(400,000) – (0.9)(300,000) = 440,000 – 270,000 = 170,000 (= 70% greater)

2019 Team Participation Event – "INDIVIDUAL" Portion

Farm Business Management Career Development Event (Iowa FFA Vo-Ag)
(5 questions @ 1 pt each; maximum points = 5 individual and 15 per team)

Select the BEST answer to each question. Code your answers on the answer sheet provided. Be sure to erase completely any answer(s) that you change.

1. Which of the following are likely possible advantages to a corn or soybean producer of producing organic crops versus traditional crops?
   a. Higher yields per acre.
   b. To reduce soil erosion and improve soil health or quality.
   c. To receive premium prices for organic products.
   d. b and c

2. Which of the following is the main requirement that must be met in order for a producer to be able to sell an 'organic' agricultural product?
   a. Apply for certification and have a certifying agent confirm that there were no synthetic chemical-based inputs used to produce the product.
   b. Have the USDA approve of any synthetic, chemical-based inputs used to produce the product.
   c. Stop producing entirely all 'traditional' products on their farm.
   d. All of the above

3. If a farmer producing 'traditional' corn switches to 'organic' corn, they are likely to:
   a. Change their crop rotation
   b. NOT change their crop rotation
   c. Use more fertilizer
   d. Utilize less labor per acre

4. The promotion and regulation of the production of 'organic' agricultural commodities in the U.S. is:
   a. Left up to individual states
   b. Coordinated by the 'National Organic Program' within the USDA's Ag Marketing Service
   c. Currently left up to individual producers to self-police and self-regulate their production practices
   d. Handled by the U.S. Department of Food Security

5. Assume Korn King can produce 200 bu of traditional corn per acre and sell it for $4.00/bu. If the farm can produce 150 bu of organic corn per acre at an added cost of $150 per acre, what price of organic corn would the farm have to receive to generate the same rate of return as traditional corn?
   a. $4.33
   b. $5.33
   c. $6.33
   d. $7.33

2019 Team Participation Event – "TEAM" Portion

2019 Iowa Vo-Ag/FFA
Farm Business Management Career Development Event
(7 questions @ 5 pts each; 35 total points maximum)

As a group/team, you are to collectively select the BEST answer to each question. Code your answers on the answer sheet provided (one answer sheet per team). Be sure to erase completely any answer(s) 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 of information available as well as determine the likely implications or consequences.

The applications of this year's "TEAM" contest focus on *the production and marketing of organic commodities by agricultural producers.* USDA's Agricultural Marketing Service implemented a National Organic Program in 2002 as a way to support organic farmers and processors and provide consumer assurance. The USDA attempts to standardize organic production requirements among dozens of State and private certification organizations that had emerged by the late 1990s, and continues to update rules on organic production and processing. Consumer demand for organically produced goods has shown double-digit growth during most years since the 1990s, providing market incentives for U.S. farmers across a broad range of products. Organic sales account for over 4 percent of total U.S. food sales, though organic products account for a much larger share in some specific commodity categories.

1. An 'organically' produced agricultural commodity:
   a. Can be produced with traditional synthetic chemical-based inputs (e.g. commercial fertilizers, herbicides, pesticides, etc.) if their use was approved by the USDA.
   b. Can be produced using GMO-based inputs if their use was approved by the USDA.
   c. Must be certified to have been produced without the use of any synthetic chemical-based inputs.
   d. a and b

2. Which of the following would most likely be a four-year 'crop rotation' for an Iowa grain farmer who wants to produce 'organic' corn and soybeans?
   a. Small grain (e.g. oat) cover crop, legume (e.g. alfalfa), corn, soybeans
   b. Corn, soybeans, corn, soybeans
   c. Corn, corn, soybeans, soybeans
   d. Corn, leave fallow, soybeans, corn or soybeans

3. Which of the following would likely be the main source(s) of N (nitrogen) in producing organic corn?
   a. Commercial fertilizer
   b. Livestock manure and a plowed-under legume
   c. Urea
   d. None as nitrogen cannot be used in producing 'organic' corn

4. Assume for a given year, Maize Farms produces organic corn. They observe that their organic corn yield is 40 bu/acre less and their organic corn costs per acre are $200/acre more than what they would be with producing 'traditional' corn. Also assume if they produced traditional corn their yield would be 200 bu/acre and they can sell that at a price = $4.00/bushel. If Maize Farms produces organic corn, what price per bu. would they need to receive in order to generate the same return per acre as with traditional corn?
   a. $5.00 b. $5.25 c. $6.00 d. $6.25

5. Assume Pure Kernel Farm produces organic corn that it can sell at a $2.00/bu premium to traditional corn. If it costs the farm $180/acre more to produce organic corn versus traditional corn, what is the minimum yield (bu/acre) of organic corn needed for the farm in order to generate the same return per acre as with traditional corn?
   a. 90
   b. 360
   c. need to know the actual price of organic corn to answer
   d. need to know the actual price and yield of traditional corn to answer

6. According to recent (2016) USDA data, this agricultural commodity accounted for the most 'organic' product dollar sales ($1.386 bil)? The next largest was eggs at $0.816 bil.
   a. apples
   b. pork
   c. broilers (chickens)
   d. milk

7. To officially and legally produce and sell a commodity that is regarded as 'organic', a producer must:
   a. Have their product certified to be organic by a certifying agent if they sell $5,000+ of organic product
   b. Have ceased traditional production for three years on the relevant part of their operation
   c. a and b
   d. Self-proclaim that the product they are selling is 'organic'

2019 Farm Business Management Career Development Event
Team Participation Event – "TEAM" Portion KEY
2019 Iowa Vo-Ag/FFA

Team -"TEAM" Portion KEY
(7 questions @ 5 pts each; 35 total points maximum)

1C
2A
3B
4D organic crop revenue/acre = traditional crop revenue/acre + extra organic crop costs/acre
- ⇨ Po(160 bu/acre) = ($4.00)(200 bu/acre) + $200
- ⇨ Po = ($800 + $200) / 160 = $6.25 where Po = organic crop price per bu

5D extra organic crop revenue per acre = extra organic crop costs per acre
- ⇨ (extra organic crop price per bu)(organic crop yield/acre) = extra organic crop costs/A
- ⇨ ($2.00)(organic crop yield/acre) = $180
- ⇨ Organic crop yield/acre = 180/2 = 90

6D
7C

Team-"INDIVIDUAL" Portion KEY
(5 questions @ 1 pt each; maximum points = 5 individual and 15 per team)

1D
2A
3A
4B
5C organic crop revenue/acre = traditional crop revenue/acre + extra organic crop costs/acre
- ⇨ (organic crop price)(organic crop yield per acre) = ($4.00)(200 bu/A) + $150
- ⇨ Po(150 bu/A) = $800 + $150
- ⇨ Po = 950/150 = $6.33

VIII. Event Materials

2019 Farm Business Management Team Topic:
Producing Organic Commodities

https://www.extension.iastate.edu/agdm/crops/html/a1-18.html
"Organic Crop Production Enterprise Budgets"
Ag Decision Maker - File A1-18; Iowa State University Extension - FM 1876 - Updated April, 2016

https://www.extension.iastate.edu/agdm/crops/pdf/a1-26.pdf
"Making the Transition from Conventional to Organic"
Ag Decision Maker - File A1-26; Iowa State University Extension - PM 2073 - February 2009

https://www.ers.usda.gov/amber-waves/2015/september/price-premiums-behind-organic-field-crop-profitability

https://www.ers.usda.gov/webdocs/charts/62493/infographic_price_premiums.png?v=8597.3

https://www.nass.usda.gov/Publications/Highlights/2017/2016_Certified_Organic_Survey_Highlights.pdf

https://www.ams.usda.gov/about-ams/programs-offices/national-organic-program

2019 Farm Business Management CDE

Attachments for "INDIVIDUAL EXAM"

Cash Flow Budget

Name: FFA FARM

Year: 2019

CASH INFLOWS	Total for Year	January February	March April	May June	July August	September October	November December
Operating							
Livestock income	574,560	95,760	95,760	95,760	95,760	95,760	95,760
Sales of crops	299,836	37,309	139,309	37,309	0	0	85,909
Other crop income	0	0	0	0	0	0	0
USDA payments	18,000	9,000	0	0	0	9,000	0
Custom hire income	0	0	0	0	0	0	0
Farm rents, interest	0	0	0	0	0	0	0
Other	6,000	1,000	1,000	1,000	1,000	1,000	1,000
Sales of Capital Assets	20,000	20,000	0	0	0	0	0
Financing							
Total new short-term loans to receive	0	0	0	0	0	0	0
New term loans to receive	20,000	0	0	20,000	0	0	0
Non-farm Income	7,400	400	400	2,900	400	400	2,900
Total Cash Inflows	**945,796**	**163,469**	**236,469**	**156,969**	**97,160**	**106,160**	**185,569**

CASH OUTFLOWS	Total for Year	January February	March April	May June	July August	September October	November December
Operating							
Seed	54,540	18,180	18,180	0	0	0	18,180
Fertilizer and lime	89,900	29,967	29,967	0	0	0	29,967
Pesticides	24,320	0	24,320	0	0	0	0
Crop insurance	12,360	0	0	0	0	12,360	0
Drying fuel	19,600	0	0	0	0	19,600	0
Custom hire or machine rental	0	0	0	0	0	0	0
Other cash costs per acre	10,200	1,700	1,700	1,700	1,700	1,700	1,700
Purchased crops	0	0	0	0	0	0	0
Purchased livestock	22,500	3,750	3,750	3,750	3,750	3,750	3,750
Purchased feed	157,500	26,250	26,250	26,250	26,250	26,250	26,250
Health and veterinary	11,250	1,875	1,875	1,875	1,875	1,875	1,875
Marketing	13,500	2,250	2,250	2,250	2,250	2,250	2,250
Other cash costs per head	0	0	0	0	0	0	0
Real estate taxes	16,000	0	8,000	0	0	8,000	0
Cash rent	100,000	0	50,000	0	0	0	50,000
Hired labor	30,000	5,000	5,000	5,000	5,000	5,000	5,000
Repairs and upkeep	13,000	2,889	1,444	1,444	1,444	2,889	2,889
Fuel and lubrication	25,000	2,500	5,000	5,000	2,500	5,000	5,000
Other fixed expenses	6,000	1,000	1,000	1,000	1,000	1,000	1,000
Equipment lease payments	0	0	0	0	0	0	0
Purchases of Capital Assets	45,000	0	0	45,000	0	0	0
Financing							
Accounts payable	29,540	29,540	0	0	0	0	0
Short term notes due	22,500	22,500	0	0	0	0	0
Term loan payments	172,300	20,300	75,800	1,300	72,300	1,300	1,300
Non-farm Expenditures							
Family living expenses	45,000	7,500	7,500	7,500	7,500	7,500	7,500
Non-farm investments	33,000	2,000	13,000	12,000	2,000	2,000	2,000
Total Cash Outflows	**953,010**	**177,201**	**275,036**	**114,069**	**127,569**	**100,474**	**158,661**

SUMMARY	Total for Year	January February	March April	May June	July August	September October	November December
Net Cash Flow	**(7,214)**	**(13,731)**	**(38,567)**	**42,900**	**(30,409)**	**5,686**	**26,909**
Beginning cash balance	3,655	3,655	(10,076)	(48,643)	(5,744)	(36,153)	(30,467)
New operating loan received	0						
Repayment of operating loan	0						
Interest paid on oper. loan balance	0	0	0	0	0	0	0
Ending cash balance	(3,559)	(10,076)	(48,643)	(5,744)	(36,153)	(30,467)	(3,559)
Operating Loan Balance							
Beginning Balance	30,554	30,554	30,554	30,554	30,554	30,554	30,554
Ending Balance	30,554	30,554	30,554	30,554	30,554	30,554	30,554

Net Farm Income Statement

Name **FFA FARM** Year **2018**

Income

Cash Income		*Income Adjustments*	Ending	Beginning
Sales of livestock bought for resale	$250,000	Crops held for sale or feed	$212,899	$223,215
Sales of market livestock, grain, etc.	$579,751	Market livestock	$265,879	$175,800
Cooperative distributions paid	$500	Accounts receivable and		$9,900
Agricultural program payments		other current assets		
Crop insurance proceeds		Unpaid coop. distributions	$16,025	$15,000
Custom hire income		Breeding livestock	$61,580	$56,884
Other cash income	$15,300	Subtotal of Adjustments	$556,383	$480,799
Sales of breeding livestock	$35,685			
Total Cash Income	$881,236	**Gross Farm Revenue (e)**		**$956,820**

Expenses

Cash Expenses		*Expense Adjustments*	**Beginning**	**Ending**
Car and truck expenses	$1,894	Investment in growing crops	$15,660	$23,757
Chemicals	$30,760	Commercial feed on hand	$17,895	$14,625
Conservation expenses		Prepaid expenses	$21,500	$21,750
Custom hire		Supplies on hand		
Employee benefits	$2,400	Subtotal of Adjustments	55,055	60,132
Feed purchased	$137,210	Net adjustment	(5,077)	
Fertilizer and lime	$105,500		**Ending**	**Beginning**
Freight, trucking	$12,290	Accounts payable	$37,458	
Gasoline, fuel, oil	$23,650	Farm taxes due	$14,588	$14,500
Insurance	$7,000	Accrued interest	$93,002	$84,700
Interest paid	$139,736	Subtotal of Adjustments	$145,048	$99,200
Labor hired	$36,000	Net adjustment	45,848	
Pension and profit-share plans	$6,000	Depreciation		$51,605
Rent or lease payments	$132,000	Gross Farm Expenses		**$871,870**
Repairs, maintenance	$12,333			
Seeds, plants	$64,925	**Net Farm Income (accrual)**		
Storage, warehousing				
Supplies purchased	$3,675			
Taxes (farm)	$8,980			
Utilities	$17,358			
Vet. fees, medicine, breeding	$11,623			
Other cash expenses	$4,560			
Livestock purchased	$21,600			
Total Cash Expenses	$779,494	**Net Farm Income (cash)**		

Net Worth Statement

Name **FFA FARM** Date **Dec. 31, 2018**

Farm Assets	**Market Value**	**Farm Liabilities**	**Market Value**
Current Assets		***Current Liabilities***	
Checking and savings accounts	$28,162	Accounts payable	$37,458
Crops held for sale/feed	$212,899	Farm taxes due	$14,588
Investment in growing crops	$15,894	Current notes and credit lines	$84,293
Commercial feed on hand	$14,625		
Prepaid expenses	$31,568	Accrued interest - short	$16,890
Market livestock	$265,879	- fixed	$76,112
Supplies on hand		Due in 12 months - fixed	$72,483
Accounts receivable			
Other current assets		Other current liabilities	
Total Current Assets	$569,027	Total Current Liabilities	$301,824
Fixed Assets		***Fixed Liabilities***	
Unpaid coop. distributions	$16,025	Notes and contracts remainder	$628,194
Breeding livestock	$61,580	Machinery	
Machinery & equipment	$418,000	Land	
Buildings/improvements	$431,200		
Farmland	$1,769,600		
Farm securities, certificates			
Other fixed assets		Other fixed liabilities	
Total Fixed Assets	$2,696,405	Total Fixed Liabilities	$628,194
A) Total Farm Assets	**$3,265,432**	**B) Total Farm Liabilities**	**$930,018**
C) Farm Net Worth		**Working Capital**	
D) Farm Net Worth Last Year	**$2,304,580**	**Current Asset-to-Debt Ratio**	
E) Change in Farm Net Worth (C-D)		**Total Debt-to-Asset Ratio**	