

Part I: Multiple Choice. Circle the best answer (3 1/3 points each).

1. Reasons why you would replace machinery would include:
 - a. it is too small.
 - b. it is worn out and not dependable.
 - c. it is obsolete.
 - d. costs such as repairs for the present machine are increasing.
 - e. all the above are reasons.

2. Methods for acquiring machinery would include:
 - a. purchase or buy
 - b. lease
 - c. joint ownership
 - d. custom hire
 - e. all of the above are methods

3. Budgets are a common tool used in analyzing farm alternatives or decisions. Examples of budgets could include:
 - a. a partial budget.
 - b. a whole farm budget.
 - c. an crop budget such as soybeans.
 - d. a livestock budget such as cattle feeding.
 - e. All of the above are types of budgets.

4. A competitive enterprise is:
 - a. where if you increase the production of one enterprise, you can also increase the production of another enterprise.
 - b. where if you increase the production of one enterprise, you will need to reduce the production of another enterprise.
 - c. where if you increase the production of one enterprise, you will not impact the production of another enterprise.
 - d. None of the above represents a competitive enterprise.

5. In a whole farm budget:
 - a. you only evaluate the costs and return for the items that are changing.
 - b. you evaluate all the revenue of the operation as costs are fixed.
 - c. you only evaluate the fixed costs for the operation.
 - d. you only compare the return for the alternative enterprise.
 - e. None of the above represent a whole farm budget.

The following eight questions are based on the attached soybean budget.

6. Attached is an example budget for soybean production. What is amount of phosphate applied per acre?
 - a. 55 pounds
 - b. 45 pounds
 - c. 150 pounds
 - d. Can't determine with information provided.
 - e. None of the above.

- c. ~~\$127.14~~
d. \$177.67
e. None of the above.
9. Given the attached soybean budget, what is the breakeven price for soybean per bushel to cover all costs? (Assume all costs are as provided in the budget.)
a. \$4.26
b. \$3.06
c. \$7.32
d. \$5.85
e. None of the above.
10. For the attached soybean budget, and if the price of soybeans is \$7.50 per bushel, what is the breakeven price for corn where the gross margin of soybeans is equal to the gross margin of corn? The variable costs for corn is \$250.00 per acre and the yield is 175 bushels per acre.
a. \$2.44 per bushel
b. \$2.41 per bushel
c. \$2.50 per bushel
d. Can't determine with the information provided.
e. None of the above.
11. How high does the price of soybeans need to be before you produce soybeans in the short run? At prices below this level you let the land sit idle. Production of another crop is not an alternative.
a. \$6.95 per bushel
b. \$4.26 per bushel
c. \$3.06 per bushel
d. \$7.32 per bushel
e. None of the above.
12. If the interest on preharvest variable costs is 9% and for 6 months, what is the interest cost?
a. \$5.08
b. \$4.71
c. \$5.38
d. \$4.84
e. None of the above
13. In the soybean budget the labor cost of \$25.73 per acre is an example of:
a. labor which is hired by the hour and you do not pay if you do not need it.
b. family labor which has an alternative use if not used on the farm.
c. labor which does not have an alternative use if not used on the farm.
d. None of the above.

The following seven questions are based on the attached "Finishing SEW Pigs" budget.

14. Given the attached "Finishing SEW Pigs" budget, what is the income (gross revenue) per pig placed if the market hog price is \$40.00 per hundred pounds?
- a. \$96.00
 - b. \$100.00
 - c. \$102.00
 - d. \$94.00
 - e. None of the above.
15. For the "Finishing SEW Pigs" budget, the labor costs of \$6.30 was:
- a. hired labor.
 - b. labor provided by the farm family.
 - c. labor that was paid a wage.
 - d. Could be a or c above.
16. How much supplement and minerals is fed per pig?
- a. 120 pounds
 - b. 9.7 bushels
 - c. 105 pounds
 - d. 126 pounds
 - e. None of the above.
17. For the "Finishing SEW Pig" budget, if there was not any death loss, what would be the level of income over all (total) costs given the information provided in the budget? The market hog price is \$40.00 per hundred pounds.
- a. \$.10
 - b. \$100.00
 - c. \$35.60
 - d. \$10.00
 - e. None of the above.
18. The interest on feed and other costs of \$1.11 per pig as reflected on the "Finishing SEW Pigs" budget is an example of:
- a. using opportunity cost to place a value on resources
 - b. non-farm costs
 - c. family living costs
 - d. fixed costs
 - e. None of the above.
19. What is the corn cost per bushel for the 'swine production' budget?
- a. \$1.89
 - b. \$1.85
 - c. \$2.15
 - d. None of the above.
 - e. Can't determine with information provided.
20. What is the breakeven selling price for all costs given the budget information provided? (The information is as provided in the budget.)
- a. \$26.83 per cwt.
 - b. \$41.62 per cwt.
 - c. \$39.96 per cwt.
 - d. \$25.76 per cwt.
 - e. None of the above.

The next seven questions are based on the following information.

You are looking into purchasing a tractor for your farm business. You have pulled together the following information for a tractor purchase and want to calculate costs.

Purchase price	=	\$150,000
Salvage value	=	\$50,000
Years of useful life	=	10 years
Fuel cost	=	\$2.70/gallon
Fuel use (gallon/hour)	=	7
Taxes	=	1% of new cost
Labor cost	=	\$15.00/hour
Repairs	=	.5% /100 hrs of use (based on new cost)
Number of acres	=	1000 acres
Hours of use per acre	=	.5 hrs
Interest rate	=	8%
Insurance and housing	=	2% of new cost

21. In a budget for tractor ownership, what is the annual interest cost?
- a. \$8,000
 - b. \$16,000
 - c. \$6,000
 - d. \$5,000
 - e. None of the above.
22. In a budget for tractor ownership, what is the annual depreciation? (Use straight line as you did in Lab 6)
- a. \$15,000
 - b. \$7,500
 - c. \$10,000
 - d. \$20,000
 - e. None of the above.
23. In a budget for tractor ownership, what is the annual insurance and housing cost?
- a. \$4,000
 - b. \$3,000
 - c. \$2,000
 - d. \$3,500
 - e. None of the above.
24. What is the level of fuel cost per acre? (As indicated, you will use the combine on 1000 acres.)
- a. \$18.90
 - b. \$5.70
 - c. \$2.70
 - d. \$9.45
 - e. None of the above.
25. In a budget for tractor operating cost, what is the annual repair cost?
- a. \$7,500
 - b. \$7.50
 - c. \$5,000
 - d. \$5.00
 - e. None of the above.

Herbicide Tolerant Soybeans Following Corn

bu. per acre
 Fixed Variable

Preharvest Machinery * \$13.30 \$11.55

Seed, Chemical, &

Seed @ \$23.90 per bu. \$11.95
 Phosphate @ \$0.37 per lb. \$13.90
 Potash @ \$0.23 per lb. 7.00
 Lime (yearly cost)
 Herbicide #
 Crop Insurance
 Miscellaneous 7.00
 Interest on preharvest
 variable costs
 (3 months @ 7.5%) 5.38

Total \$112.80

Harvest Machinery

Combine \$10.00 \$3.00
 Header 0.40 1.20
 Header 0.45 0.20

Total \$11.25 \$4.40

Labor

2.45 hours \$28.75

Land

Cash rent \$120.00

Total fixed, variable

Per acre \$179.25 \$122.33

Per bushel

Total cost per acre

Total cost per bushel

* Check your dealer for combine, header, and cost. See the National Soybean Data Survey.
 # Estimate of herbicide cost based on current prices.

Supporting Information

Exam 2

Econ 330 Fall 2006

VARIABLE COSTS

SEW Feeder pig (12 lb)	\$25.00	\$25.00
Interest @ 8% for 150 days	\$0.82	\$0.82

Feed Costs

Corn @ \$ 1 per bushel	9.7 bu	\$17.95	\$0.00
Supplement & minerals @ \$0.14 per lb		16.80	16.80
Pre-nursery diet		3.00	3.00
Feed Additives		3.00	3.00
Feed processing & delivery @ \$20.00 per ton		6.70	6.70

Total Feed Costs

\$47.44 \$29.50

Veterinary and medical		\$1.00	\$1.00
Fuel, repairs, utilities		1.20	1.20
Manure application cost		1.75	1.75
Interest on feed and other costs @ 8%	3 months	1.11	0.00
Labor @ \$9.00 per hour	0.70 hours	6.30	0.00

TOTAL VARIABLE COSTS

\$88.62 \$63.27

INCOME OVER VARIABLE COSTS

\$ _____ \$ _____

FIXED COSTS

Facilities & equipment		\$11.28	\$1.13
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TOTAL OF ALL COSTS

\$99.90 \$64.40

INCOME OVER ALL COSTS

\$ _____ \$ _____

Break-even selling price for variable costs

Break-even selling price for all costs

a/ Assumed death loss is 4 percent.