Strategic Planning and Budgeting

Circle the letter of the best answer. You may put a square around the letter of your second choice. If your second choice is right, you get half credit. There is no penalty for making a second choice. (4 points each)

1. The purpose of performing breakeven analysis in a partial budget is to find out:
   a. The minimum selling price needed to cover variable costs.
   b. The value for some key variable that would cause the net effect on profit of the change being analyzed to be zero.
   c. The total cost of production for some enterprise.
   d. The net change in profit that would occur if a certain management change is made.

2. A common budget unit for a livestock enterprise budget is:
   a. One pound
   b. One hundredweight
   c. One acre
   d. One head

3. The statement “To achieve an average feed conversion rate of 2.75 pounds of feed per pound of gain for my market hogs by 2007.” is:
   a. A mission statement
   b. A goal
   c. A strategy
   d. An example of external scanning

4. “Double cropping” refers to:
   a. Growing two crops on the same land in the same year, one after the other.
   b. Growing two crops on the same land at the same time.
   c. Growing two crops on the same farm in the same year on different land.
   d. Growing one crop that has two different products that can be sold.

5. In annual budgets, ownership costs for capital assets are often referred to as:
   a. Capital costs
   b. Opportunity costs
   c. Fixed costs
   d. Variable costs

6. Variable costs for farm machinery include all the following except:
   a. Fuel
   b. Custom operator charges
   c. Interest on investment
   d. Repairs
7. The purpose of doing sensitivity analysis in a budget is to:
   a. Determine to what degree a lower than expected price or production level would affect profit or net income
   b. Determine the opinions of everyone involved in the farming operation about a proposed change
   c. Find the net change in profit from carrying out a certain action
   d. Find out how consumers’ tastes for food are changing

8. In an enterprise budget, the term “income over total costs” means the same thing as:
   a. Gross margin
   b. Profitability ratio
   c. Profit and return to management
   d. Net income

Calculate the value per unit indicated for each of the following items that might appear in an enterprise budget. Show your calculations. (4 points each)

9. Revenue from the sale of steer calves from a beef cow herd with a 94% calf weaning average. Steer calves are sold at 600 pounds at a price of $125 per hundredweight.

   $__________ per cow unit

10. The USDA loan deficiency payment per acre when the USDA county loan rate for soybeans is $5.00 per bushel, the expected selling price is $4.75 per bushel, and the expected yield is 50 bushels per acre.

   $__________ per acre

11. The cost of replacement dairy heifers in an annual dairy cow budget when bred heifers cost $750 each and the annual culling rate is 25%. Ignore death loss for breeding stock.

   $__________ per cow unit

12. The cost of anhydrous ammonia (NH3) fertilizer for corn when 150 pounds of it is applied per acre and NH3 sells for $280 per ton.

   $__________ per acre
13. The interest cost on preharvest variable costs when seed, fertilizer, pesticides, fuel and repair costs for an acre of wheat total $110, operating loans have a 6.4% annual interest rate, and the time period from planting to harvest is 9 months.

$___________ per acre

14. The cost for one acre of owned land for a cotton budget, when the land has a sale value of $2,000 per acre, the annual opportunity cost rate of return on capital is 5%, and property taxes on the land are $20 per acre per year. One crop of cotton and one crop of sorghum are grown on the land each year.

$___________ per acre

15. The breakeven selling price for oats when total costs of production are $210 per acre, the expected yield of oats is 75 bushels per acre, and the expected straw production is one ton worth $60 per ton.

$___________ per bushel

Ownership Costs (3 points each)

16. Calculate the depreciation cost for the current year for a corn planter that has a current value of $30,000, using the recommended depreciation rate used in class.

$___________

17. Calculate the interest cost for the current year for the same planter if there is a $10,000 loan against it with an interest rate of 9%, and the opportunity cost interest rate on equity capital is 3%.

$___________

18. Now calculate the average depreciation per year for the remaining 6 years you expect to own the planter. The expected salvage value is $18,000 after 6 years.

$___________

19. Calculate the average annual interest cost over the 6 years, using the same interest rates as above.

$___________
Which type of budget would be most useful for answering each of the following questions?
Indicate with the appropriate letter. (2 points each)

E  Enterprise Budget
W  Whole Farm Budget
P  Partial Budget

20. _______ What is your breakeven selling price for milk (for a dairy farm)?
21. _______ Should you sell your combine and hire someone to harvest your corn and soybeans?
22. _______ How much profit per acre could you expect from growing tofu soybeans?
23. _______ Will you produce enough alfalfa hay to supply both your cattle and horse enterprises?
24. _______ Should you purchase a boar or use artificial insemination for a swine breeding herd?

25. Explain the difference between internal scanning and external scanning in strategic farm planning. (5 points)

26. Explain why a cash grain farm that owns all its own land would be more likely to continue producing when selling prices are very low than a farm that rents its land with a one-year cash contract. (5 points)
1. b
2. d
3. b
4. a
5. c
6. c
7. a
8. c

9. \[0.94 \times 0.50 \times 600 \text{ lb.} \times 1.25/\text{lb.} = 352.50 \text{ per cow unit} \]
10. \[(5.00 - 4.75) / \text{bu.} \times 50 \text{ bu./a.} = 12.50 \text{ per acre} \]
11. \[750 \times 25\% = 187.50 \text{ per cow unit} \]
12. \[150 \text{ lb.} \times 280/\text{ton} \times \frac{1 \text{ ton}}{2,000 \text{ lb.}} = 21.00 \text{ per acre} \]
13. \[110 \times 6.4\% \times \frac{9}{12} \text{ yr.} = 5.28 \text{ per acre} \]
14. \[
\frac{(2,000/\text{acre} \times 5\% + 20/\text{acre})}{2}
\]
15. \[(210/\text{a.} - 60) / 75 \text{ bushel} / \text{acre} = 2.00 \text{ per bushel} \]
16. \[30,000 \times 10\% = 3,000 \]
17. \[
\frac{10,000}{30,000} \times 9\% + \frac{20,000}{30,000} \times 3\% = 3 + 2 = 5\%
\]
18. \[
\frac{30,000 - 18,000}{6 \text{ years}} = 2,000
\]
19. \[
\frac{30,000 + 18,000}{2} = 24,000 \text{ average value}
\]
20. E
21. P
22. E
23. W
24. P

25. Internal scanning evaluates the assets the farm already has, such as land, building and machinery, as well as human skills and interests.
External scanning evaluates trends or forces outside the farm that will affect its financial success.

26. A farm that owns its own land would have higher fixed costs and lower variable costs, so even at lower prices it would be able to generate revenue in excess of variable costs.