

PS 371  
Spring 1996  
1st Exam

Name: \_\_\_\_\_

**Circle One** (4 points each)

The family in the following statements is obviously fictitious, but some of the following statements could be true about some people. Mark each question (**T**)rue or (**F**)alse and if you choose (**F**), explain what is wrong at the bottom and on the next page.

- T F** 1. Big MacDonald's grandfather started out in the broiler business on the Delmarva peninsula when a disease struck that only affected Single Comb White Leghorn laying chickens.
- T F** 2. Since he already had a laying house, Old MacDonald's variable costs to raise broilers were low in the long run.
- T F** 3. Each year Old Mac grew more and more broilers, increasing his inputs and outputs.
- T F** 4. In the short-run, Old Mac considered carefully the cost of his building when deciding how many broilers to grow.
- T F** 5. The Delmarva area had a mild climate, so housing was inexpensive and feed was his biggest variable cost.
- T F** 6. In the long-run, Old Mac realized there was great potential and so considered costs, fixed and variable, in deciding to build new broiler houses.
- T F** 7. When Mac Jr. returned from WW II, he agreed to buy his father's farm for a fixed fee each year, for the following ten years, an annuity.
- T F** 8. When Big Mac inherited the farm his grandfather started, he was more interested in reducing marginal costs like pick-up trucks and telephone bills than in enterprise costs.
- T F** 9. By 1970, the MacDonald farm had become part of an integrated system, buying their feed and selling birds to the Urner Barry Company.

- T F** 10. In the long-run, B.M. revoked many of his poorer decisions and learned not to rush judgements unless there was an imminent need.
- (10 pts.) 11. Name 5 changes in technology that allowed Big Mac to grow many more pounds of chicken each year than his grandfather in the same housing space.
- (10 pts.) 12. Draw a line graph showing theoretical production functions for commercial broilers from 1996 and how you think they will grow in 2001. Label the axes:
- (2 pts. each) 13. Draw line graphs and label the following curves correctly:
- |     |   |                        |                      |
|-----|---|------------------------|----------------------|
| AFC | = | Average fixed costs    | Total cost           |
| TFC | = | Fixed costs            | Level of output      |
| TVC | = | Total variable costs   | Cost per unit output |
| TC  | = | Total costs            | Level of output      |
| AVC | = | Average variable costs |                      |
| MC  | = | Marginal costs         |                      |
| ATC | = | Average total costs    |                      |
- (10 pts.) 14. A turkey producer can purchase a machine to toe clip poults for \$200,000. The company expects labor savings of \$5,500/month over the 10-year life of the machine. If the interest rate is 12% per year, should they buy the machine? Show your work.
- (5 pts.) **Extra Credit:** What is the payback period for the toe clipper?
- (8 pts.) 15. Define Management and explain what a manager does.