R.E. Marks
C.M. Adam

Midterm Exam

Time for exam: 5 minutes reading time
1 hour 15 minutes writing time

This exam is closed book except for a single A4 sheet, which may including notes on both sides. PLEASE RETURN THE EXAM QUESTION PAPER.

Attempt FIVE questions from Section One (each worth 10%). Attempt TWO questions from Section Two (each worth 25%). Section One is worth 50%. Section Two is worth 50%.

Try to keep your answers concise and to the point. (A couple of minutes' planning before you start the answer can save time in the long run.) Make any economic assumptions which seen reasonable, but state them explicitly and clearly, and explain your reasons for making them. Assumptions should remain consistent with one another throughout any given problem. Your reasoning and your conclusions should be explained and interpreted clearly.

Section One — attempt FIVE questions (5 × 10% = 50%)

In ALL cases, a brief explanation is required as well.

1. If the demand for soybeans is price-inelastic, then we would expect that when bad weather reduces the size of the soybean crop, total revenue of soybean producers will fall. True or False? Explain.
2. If the price of the output of a profit-maximising, price-taking firm rises and all other prices stay constant, then it cannot happen that the quantity of output falls. True or False? Explain.
3. For a profit-maximizing firm with market power, its supply curve is its marginal cost curve above the minimum average cost. True/False? Explain.
4. A profit-maximizing firm faces a straight-line, downwards-sloping demand curve, where the maximum demand for its output is 10 units per day, at zero price. Given this demand, it will never choose to offer more than 5 units per day for sale. True/False? Explain.
5. When the wage rate rises, the opportunity cost of leisure rises. True/False? Explain.
6. If marginal cost is rising with output, then average cost must be rising too. True/False? Explain.

7. If a government seeks to raise revenue through excise taxes, the best commodities to tax are those with elastic demand schedules. True/False? Explain.

8. A linear demand curve is inelastic above the midpoint and elastic below the midpoint. True/False? Explain.

9. Average fixed costs always decline as output expands in the short run. True/False? Explain.

10. The size of fixed costs does not affect the supply curve of a competitive firm. True/False? Explain.

Section Two — attempt TWO questions. (2 × 25% = 50%)

11. Below are some fixed cost and variable cost figures for Smedley's Pty. Ltd. Assume that Smedley's is selling in a perfectly competitive market. Fill in the rest of the columns and then answer the following questions.

Your Name: _____

Output	Fixed Cost ($)	AFC ($/unit)	Variable Cost ($)	AVC ($/unit)	Total Cost ($)	ATC ($/unit)	MC ($/unit)
0	100	na	0	na	____	na	na
1	100	_____	40	_____	____	_____	_____
2	100	_____	70	_____	____	_____	_____
3	100	_____	120	_____	____	_____	_____
4	100	_____	180	_____	____	_____	_____
5	100	_____	250	_____	____	_____	_____
6	100	_____	330	_____	____	_____	_____

a. How low would the market price of its output have to go before Smedley's would shut down in the short run?

b. What is the price of its output at which Smedley's would just break even (π = 0) in the long run. What output would Smedley's produce at that price?

c. If the price of its output were $76/unit, what rate of output would Smedley's produce and how much profit would it earn?

12. Researchers have reported that the price elasticity of demand for restaurant meals is 1.63, and their income elasticity of demand is 1.40.

a. Is the price elasticity of demand for restaurant meals elastic or inelastic? Explain.

b. Are restaurant meals an inferior good? Explain.

c. What is your prediction about the change in quantity demanded when the price of restaurant meals falls by 2%?

d. What additional information would allow a better estimate of your previous answer? Explain.

e. From 1990 to 2003 personal income rose by about 45% in constant-dollar terms. Given the facts at hand, what is your best estimate of the change in the quantity of restaurant meals served due to changes in income over this period (assuming the real price of these meals remained unchanged)?

13. When Robert Marks was a lad of 13 or so, he had an interesting discussion with his hairdresser about the prices charged for cutting boys' hair versus the prices for cutting men's hair. For boys up to the age of 14 the price was half that charged for 14-year-olds and older; prices were regulated by the State, so there was no price competition among commercial hairdressers. Young Robert argued that young heads should cost more to cut than old heads, and gave several reasons:

    a. Boys can be unruly,

    b. Older customers are more interesting to talk to,

    c. Older men have less hair.

    Young Robert couldn't get his barber to agree. Using your knowledge of microeconomics, explain why men paid twice the price that boys paid for commercial haircuts.

14. The average price of a home in Westal rose more than 12% last year ... but the number of sales fell nearly 15%. "It's the good old law of supply and demand", said a spokesperson for the Real Estate Institute. "The number of sales is down because there's a higher demand for properties but there isn't a corresponding number to sell".

    a. What does the "good old law of supply and demand" predict will happen to price and quantity if the demand curve shifts outwards and the supply curve doesn't change?

    b. Draw a diagram to illustrate the case of a shift in demand and/or supply curves that is consistent with the observed change in prices and quantities.

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