Economics Tripos Part 1 Paper 1
Microeconomics
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Supervision 4 (Producer Theory II): Industrial organisation, equilibrium, short/long run, competitive firms, monopoly

Reading: Varian ch. 21-25

Short answer questions

1. What characterises a competitive firm?

2. Will a firm that operates at p=MC always make a non-negative profit?

3. Is the industry supply curve always upward sloping?

4. Can a good that is less valuable to a consumer cost more in equilibrium than a good that is more valuable?

5. Does a monopoly always produce less than a competitive market?

6. Does there always exist a competitive equilibrium?

Problems

7. (a) Use the model for industry equilibrium to derive the effect on output, prices and number of firms in the short and long run from a tax on output.

(b) Is the response smaller or larger in the long run compared to the short run?

(c) Consider the technology $y = L^{0.5}K^{0.4}$. The cost of labour is w and the cost of capital is r. Suppose there is a fixed cost F.

    i. Obtain the cost function in the short run when K is fixed. Does there exist an efficient scale?

    ii. Obtain the cost function in the long run when K is free to vary. Does there exist an efficient scale?

    iii. Draw a graph of the average cost curve in the short and long run.

    iv. Does this technology imply that there is a natural monopoly?

v. Suppose the firm now wishes to maximise profit and it is a price taker - the price of its product, p, is exogenously given. Derive the firm's supply function (i.e. the firm's optimal output in terms of the prices of inputs and output).

vi. Suppose now that there are 50 firms of this type and they each profit maximise. What is the industry supply function?

8. Tripos 2009 B11

Essay [1200 words]

9. "Monopolies promote rather than hinder economic efficiency." Discuss.

Extra questions - if you want to revise the Michaelmas term material - I will mark them if you hand them in but will not go through them in the supervision

1. Tripos 2009 A1

2. Tripos 2009 A3

3. Tripos 2007 A4

4. Tripos 2007 A8