

**Seminar Set 6 - Wed. 20 April**

*Question 1.* (exam 2010)

The correctness of the statements below depends on the circumstances. For each of the statements, specify circumstances under which the statement is true, or specify circumstances under which the statement is false (or do both if appropriate).

- (1) In static oligopoly, competition between two firms leads to price = marginal cost.
- (2) Capacity competition followed by price competition yields quantity competition.
- (3) In models of dynamic oligopoly, tacit collusion is facilitated by few firms and short detection lags.
- (4) In models of dynamic oligopoly, price wars occur during booms.
- (5) Asymmetric cost information is welfare-enhancing as it motivates firms to signal low costs through low prices.
- (6) Competition is good for firms' incentives to innovate.
- (7) Mergers are welfare-enhancing if the increase in the profits of non-merging firms is larger than the reduction in consumers' surplus.

*Question 2.*(exam 2012)

- (1) Consider a situation where consumers are uniformly distributed along the line segment  $[0, 1]$ . Two firms, A and B, are located at the two extreme points 0 and 1. Assume consumers' transportation cost is quadratic, so that a consumer located at  $x$  incurs cost  $tx^2$  to go to A at 0 and cost  $t(1-x)^2$  to go to B at 1. Firms set prices simultaneously. Find their equilibrium prices.
- (2) Explain, if necessary with the help of the model in (a), that two firms, when free to choose their locations on the line segment  $[0, 1]$ , end up in the extreme locations 0 and 1. Why do we assert that this entails too much product differentiation?
- (3) Discuss how a location in an extreme point, as indicated in (b), can be viewed as a puppy-dog strategy.

- (4) Suppose, contrary to the situation in (a), that prices are fixed, say, at  $\bar{p}$ . Would that change the firms' location decisions, compared to what was found in (b)?