UNIVERSITY OF OSLO
DEPARTMENT OF ECONOMICS

Exam: **ECON4820 – Strategic Competition**

Date of exam: Tuesday, May 20, 2014 **Grades are given: June 10, 2014**

Time for exam: 09.00 a.m. – 12.00 noon

The problem set covers 1 page

Resources allowed:
- No resources allowed (except if you have been granted use of a dictionary from the Faculty of Social Sciences)

The grades given: A-F, with A as the best and E as the weakest passing grade. F is fail.

Question 1

Consider an industry consisting of $n \geq 2$ identical firms, each with a constant unit cost of production equal to $c > 0$. The product is homogeneous, and demand is given by the inverse demand function $P(Q) = a - Q$, where Q is total quantity supplied and $a > c$.

(a) Suppose that the firms compete in quantities. Find the equilibrium quantity offered by each firm.
(b) Suppose instead that the firms compete in prices. Find the equilibrium price offered by each firm.
(c) Suppose one of the firms in (b) makes an innovation that reduces its unit cost of production to $\hat{c}$, where $0 < \hat{c} < c$. Find a condition for this innovation to be non-drastic.
(d) Explain why the value of the innovation for the innovating firm in (c) is higher than if the firm had been a monopolist.

Question 2

(a) What is the external effect of a merger? Why does it make sense to concentrate on the external effect when assessing the welfare consequences of a merger?
(b) What is meant by the coordinated effects of a merger?
(c) Many jurisdictions apply the consumer welfare standard when assessing mergers. Explain what it is and discuss its merits.

Question 3

Discuss whether, in the equilibrium of a market with horizontal product differentiation, too many or too few product variants are offered, compared to the social optimum.