Economics 205
UNIVERSITY OF VICTORIA
Managerial Economics
Spring 2014
<u>**Assignment #4**</u>

Due: Friday, March 21, 2014 (3 pm.) (Place In the box marked **Econ 205** near the Economics main office.)

<u>**Question 1:**</u>   The Jump-It! Company is a firm within a perfectly competitive industry. Its total cost function, like all members of the industry, is:

$TC = 648 - 32Q + 8Q^2$,

where TC is the firm's monthly total cost (in dollars), and Q is the firm's monthly output. If the industry is in long-run equilibrium, what is the price of Optimize-It's product and its monthly output?

5 Marks

<u>**Question 2**</u>:   The cornstarch industry is perfectly competitive. Each case of starch contains 50,000 kgs. The minimum point along the long-run average cost curve of cornstarch producers is $11,830, and this minimum point occurs at an output of 200 cases per week. The market demand curve for these cases of cornstarch is:

$$Q_D = 850,625 - 25P,$$

where P is the price of starch (in dollars per case), and Q_D is the quantity of starch demanded per week. The market supply curve for starch is

$$Q_S = 22,525 + 45P,$$

where Q_S is the quantity of cases supplied per week.

A)   What is the equilibrium price of cornstarch? Is this the long-run equilibrium price?

(2 Marks)

B)   How many firms are in this industry when it is in long-run equilibrium?

(2 Marks)

<u>**Question 3**</u>:   Markus Connor is the owner of a Dental-laser company operating in an economy as an unregulated monopoly. After considerable research and testing, he finds that his marginal cost can be approximated by a straight line, MC=785 +9Q, where MC is marginal cost (in dollars), and Q is output. The demand curve for the product is P=5005-5.5Q, where P is the product price (in dollars) and Q is output.

a) If he wants to maximize profit, what output should he choose? *(2 Marks)*
b) What price should he charge? *(2 Marks)*

Question 4: (6 Marks)

Explain and illustrate the effect of a per unit tax on consumer and producer surplus.

Question 5 (6 marks)

Define and explain what the market structure of Monopoly entails. Include the demand and supply curves for the firm and market, and the long-run equilibrium point of production for an individual firm.

Total 25 Marks