**NTU SSS Economics HE1001**

**Problem Set 1: Perfect Competition**

**This problem set will be discussed during the tutorials in Week 9 (16-17 Oct)**

1. True or False? The demand curve a perfectly competitive firm faces is the same as its

average revenue curve and its marginal revenue curve, and the firm will maximize profit at P=MC. Use graph to explain your answer.

1. Suppose you are the manager of a firm operating in a competitive market. Your cost of

production is given by C = 200 +2 \* q2 , where q is the level of output and C is total cost. The fixed cost of production is $200.

* 1. If the price of the product is $100, how many units of product should you produce to maximize profit?
  2. What will the profit level be?
  3. At what minimum price will the firm produce a positive output?

1. In the local consumer good market, there are 1,000 producers that have identical short-run

cost functions. They are: TC (q) = 0.025q2 + 200, where q is the unit of product

produced each period. If the local market is perfectly competitive, what is each producer's short-run supply curve? Derive the local market supply curve.

1. Please discuss whether the telecommunications services in Singapore is a perfectly competitive market.