

Midterm Exam October 26 2011 2:30 – 3:30 pm

Do all 3 questions. All count equally.

1. What are the Marshallian (uncompensated) demand functions for a consumer whose preferences can be represented by the utility function

$$u(x_1, x_2) = 100 - \frac{1}{x_1} - \frac{4}{x_2} \quad ?$$

2. How much would a risk-averse expected utility maximizer be willing to pay for an insurance policy which offers complete coverage against a loss of  $L$  if her initial wealth were  $W$ , the probability of the loss were  $\pi$ , and her utility-of-wealth function were

$$U(W) = \ln W \quad ?$$

3. Explain why perfect competition is inconsistent with increasing returns to scale.