

Midterm Exam    October 30 2017

Do all 3 questions. All count equally.

1. What are the Marshallian demand functions for a person whose preferences can be represented by the utility function

$$U(x_1, x_2, x_3) = x_1 + \log(x_2) + \log(x_3) \quad ?$$

2. Give three distinct definitions of what it means for person  $A$  to be always more risk averse than person  $B$ .

3. What is the **profit function**  $\pi(p, w_1, w_2)$  for a perfectly competitive firm with a production function

$$f(x_1, x_2) = 3(x_1x_2)^{1/3} \quad ?$$