

ECO138 Quiz 3 April 27 2018

ID:

Name:

For  $\pi(K, L) = 24K^{1/3}L^{1/4} - 4K - L$ , where  $K \geq 0, L \geq 0$ , answer the following questions

1. Find  $K^*$ ,  $L^*$  and  $\pi^*$ .

2. Confirm second order condition for profit maximization. (No need to control for the saddle point for this question.)

3. By using Envelope Theorem, derive how much  $\pi^*$  from part 1 will change if the price for L (wage) is changed by one unit. (DO NOT resolve the optimization problem.)