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**Fall 2006, Intermediate Macroeconomics, section 1**

## **ECON 219 Quiz II**

**General recommendations:**

- Read questions thoroughly.
- Please respond on this copy.
- You have 20 minutes.
- Work individually.
- There are two pages.
- Good luck!

**Your name:**

1. Circle the appropriate answer on each of the following items. Circle multiple items if necessary:
  - (a) Which of the following would increase total factor productivity (“ $z$ ”): 1) a new technology; 2) a new factory; 3) adverse weather; 4) an increase in credit.
  - (b) The assumption that labor has a decreasing marginal return to production means that as labor increases: 1) output increases; 2) the wage decreases; 3) the production function is concave; 4) the production function shifts upward.
  - (c) Which stylized facts, valid for the United States, do not hold for other countries? 1) investment is more volatile than output; 2) employment fluctuates less than output; 3) government expenses are acyclical; 4) average hours fluctuate less than employment.
  - (d) The substitution effect measures: 1) the response of quantities to changes in the relative price of goods; 2) the responses of relative prices to changes in the demand for goods; 3) how two goods can be used for the same purpose; 4) the responses of quantities to changes in the relative quality of goods.
2. Show graphically the impact of a tax cut on household consumption choices.

3. Given this production schedule, how many workers should the firm hire if it maximises profits and the wage is 7? Why?

Workers	1	2	3	4	5	6	7	8	9	10
Output	25	45	67	79	89	97	103	108	112	115

4. In the production schedule of the preceding question, what standard assumption about the production function is not satisfied?

5. What happens to consumption demand if the wage increases? Explain why.

Bonus question: If we assume that the production function has the functional form  $y = zN^a K^{1-a}$ , show what the optimal choice of  $N$  is for the firm when it maximizes profits  $\pi = y - wN$ .