Student ID.....

EE312 Macroeconomics, 2/2017 (Sec. 046402 - Sicha)

Problem Sets 2

Please submit at the BE office, 5th floor department of Economics building.

Deadline of submission : February 6, 2018, before 15.00 hrs.

If the space provided is not enough, please attach a separate sheet.

Late submission will not be accepted.

PART 1. Short Answer.

1. Consider a worker who earns \$10 per hour. There are 168 hours in a week. Price level is P and nominal wage is W.

   (a) Write down budget constraint.

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   (b) Write down utility maximizing condition.

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   (c) Suppose that substitution effect is greater than income effect. How does labor supply change when nominal wage increases? Illustrate (using a graph) the income effect and the substitution effect. Clearly indicate labor supply at the original level of nominal wage and labor supply at the new nominal wage.

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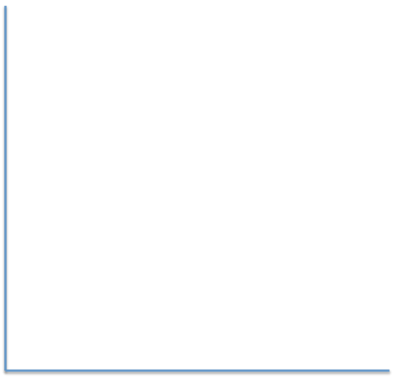
(d) Suppose that substitution effect is greater than income effect. How does labor supply change when price level decreases? Illustrate (using a graph) the income effect and the substitution effect. Clearly indicate labor supply at the original level of price and labor supply at the new price.



2. The production function slopes upward, but its slope declines from left to right. Give an economic interpretation of each of these properties of the production function.

3. What is a production function? What are some factors that can cause a nation's production function to shift over time?

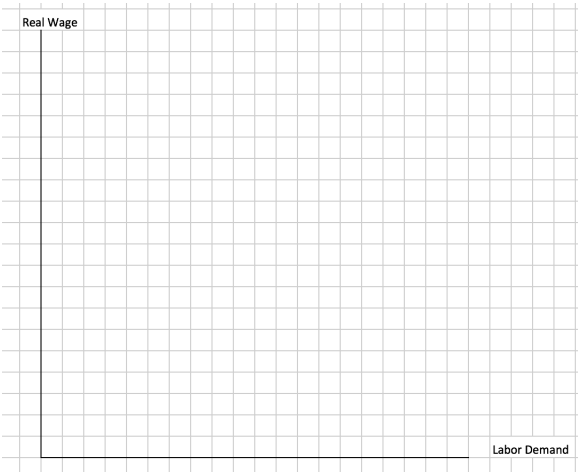
4. Explain why the profit-maximizing level of employment for a firm occurs when the marginal revenue product of labor equals the nominal wage. How can this profit- maximizing condition be expressed in real terms?

5. What is the MPN curve? How is the MPN curve related to the production function? How is it related to labor demand?

6. For a particular firm, the following labor input N and output are reported. Capital remains constant. Please fill in the blanks in the table and answer all questions.

Labor (number of employees)	Output (number of output produced per day)	Marginal Product of labor	Value of Marginal Product of labor (P=10)	Value of Marginal Product of labor (P=20)
0	0	-	-	-
1	10			
2	19			
3	26			
4	31			

(a) Plot labor demand curve as a function of real wage. (No need to draw to scale. The point of this practice question is for your understanding about labor demand function.)



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7. Plot labor demand curve as a function of nominal wage; one for when price level is equal to 10 and another one for when price is equal to 20. (No need to draw to scale. The point of this practice question is for your understanding about labor demand function.)

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(a) Suppose P = 10. To hire 3 employees, What is the maximum nominal wage, the firm is willing to pay?

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(b) Suppose P = 20. To hire 3 employees, What is the maximum nominal wage, the firm is willing to pay?

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PART II. Essay Questions.

1. Consider the following situation in T-land country and answer the question.

   Paragraph 1 : "The short term interest rate fell rapidly, hit the zero bound, and remained there. This was the result of the economic slump and of the Bank of T-land's following an expansionary policy to revive the economy.

   Paragraph 2 : At the current low level of interest rates in T-land, the speculative **demand curve for money would become very flat** reflecting a **high interest elasticity of money demand**. This follows because at such a low level of the interest rate, a consensus would develop that future increases in interest rates were likely with expected capital losses on bonds."

   Paragraph 3: "The Bank of T-land states that it will stop using an expansionary monetary policy since it is now the job of the government to move the country out of recession."

   Given the situation described in Paragraph 1 and 2, do you agree with the Bank of T-land statement in paragraph 3? Comment by using ISLM analysis.

2. What are the effects of an increase in government spending in the Keynesian ISLM ADAS and labor market model? Include in your answer the effects of this policy shift on the level of real income, real wage, employment, the price level, and the rate of interest.