

考試科目	經濟學	所別	財政學系	考試時間	2月27日(六)第三節
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1. (15%) Answer the following questions on production theory.
 - (a) (5%) Define technological efficiency rigorously.
 - (b) (10%) Explain the relationship between profit maximization and cost minimization.

2. (15%) Answer the following questions on consumer theory.
 - (a) (5%) Using graphs or mathematics to give an example of preferences (utility function) that has no substitution effects.
 - (b) (5%) Using graphs or mathematics to give an example of preferences (utility function) that has no income effects.
 - (c) (5%) Compare the substitution effects defined by Hicks and Slutsky.

3. (20%) Consider an economy with one firm acting competitively with technology: $y = aL$, where output y is produced with labor input L , and a is a constant larger than zero. There is one consumer with utility function for output, y , as produced by the firm, and leisure, R : $u(y, R) = \alpha \ln y + (1 - \alpha) \ln R$, where α is a constant in interval $(0, 1)$. The consumer is endowed with one unit of labor/leisure. In the following, use p and w to denote prices of output and leisure.
 - (a) (5%) Write down the consumer's maximization problem.
 - (b) (5%) Compute the equilibrium output.

Now suppose the firm has a production technology: $y = \sqrt{L}$, and the firm is owned by the consumer. Normalize the price of output to be 1 so that the real wage: $w/p = w$.

- (c) (10%) Calculate the equilibrium real wage w^* . (HINT: 1. Solve the firm's problem to derive output supply, factor demand, and profits. 2. Taking into account the profits, solve the

備註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。
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考試科目	經濟學 71313 21363	所別	財政學系	考試時間	2月27日(六)第二節
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consumer's problem to derive demand functions. 3. Use Walras's law to solve the equilibrium real wage.)

4. At a televised debate between the presidential candidates last month, one of candidates said that the economy could be stimulated by gradually raising the minimum monthly wage. Differences of opinion existed about this policy proposal. Some experts supported the raise of minimum wage rate, while others said that proposing to stimulate the economy by raising the minimum wage was "brainless." Please elaborate and analyze arguments for and against this proposal. (20 points)
5. Who bears the burden of the government debt? Explain why. Under what circumstances is there no burden to be borne? (10 points)
6. How would each of the following changes affect the steady-state values of the capital-labor ratio, output per worker, and consumption per worker? (20 points)
 - (a) A change in the composition of the capital stock raises the depreciation rate.
 - (b) A change in social mores (社會習俗) lowers the population growth rate.
 - (c) Government tax policies change to encourage a higher saving rate.
 - (d) A supply shock reduces productivity sharply.

備

註

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- 二、試題請隨卷繳交。