

國立清華大學 命題紙

97 學年度 經濟學 系(所) 組碩士班入學考試

科目 個體經濟學 科目代碼 4601 共 2 頁第 1 頁 *請在【答案卷卡】內作答

I. Indicate whether you consider each of the following statements to be TRUE or FALSE. In each case give a brief explanation of your answer. Your grade will depend heavily on your explanation. (8 points each question except question 2)

1. A firm's long run cost function is an increasing function of input prices.
2. The production function $f(K, L)$ exhibits constant returns to scale if and only if its corresponding cost function exhibits neither economies of scale nor diseconomies of scale. (10 points)
3. Suppose the Red Cross Society of the ROC (中華民國紅十字總會) is one of the suppliers to the perfectly competitive domestic blood market. Being a non-profit organization, its goal is to sell as much as possible without making profit. Consequently, the blood supply curve of the Red Cross is its AVC (average variable cost) curve.
4. A consumer consumes only one good X . Then, the change in consumer surplus is greater than the compensating variation when the price of X decreases from NT\$2 to NT\$1.
5. A consumer with non-labor income NT\$2000 per week chooses to work 20 hours weekly at an hourly wage rate NT\$100. When the non-labor income rises to NT\$2200 per week, the consumer unfortunately loses the original job, and decides to work for 25 hours a week at a new job with hourly wage rate NT\$90. We could conclude from the above information that the consumer's behavior violates the weak axiom of revealed preference.
6. The following news reported on 24 January 2008 says that after the increase of health tax, the price of cigarette would rise to some NT\$100 per pack. This estimate is based on the fact that the current cigarette price is around NT\$50 to NT\$60 per pack. If the cigarette market is perfectly competitive, then the statement underlined is self-contradictory since the price cannot rise to NT\$100 if the increase in health tax is indeed effective in reducing smoking.

衛署修法 每包香菸一百元

【黃天如／台北報導】

為有效降低吸菸率，衛生署已將《菸害防制法》修正草案送行政院，取消菸捐每次調漲幅度以菸價一〇%的上限，並在最短時間內將菸捐由現行十元調為四十五元，藉此讓國內目前偏低的菸價倍增為百元上下，以價制量。

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II. Suppose there is only one golf club in a town. A golf player pays an annual membership fee plus a fee for each use of a court. Let x be the number of annual uses of a court for a golf player and p be the fee for each use of a court.

If There are 50 golf players in the town each of them has the identical demand curve which is

$$x = 100 - 2p$$

The average cost of each use of a court is constant at \$10 for the golf club. Calculate the equilibrium (profit maximization) membership fee and the fee for each use of a court. What are the consumer surplus and producer surplus in equilibrium? (15 points)

III. In the case of asymmetric information,

1. What economics problem emerges if an agent's action (or behavior) can not be observed by the other agent? Use insurance as an example to describe this problem. How do you solve this problem? (10 points)
2. What economics problem emerges if an agent's true type can not be observed by the other agent? Use insurance as an example to describe this problem. How do you solve this problem? (10 points)

IV. What is the Walras Law? Explain why Walras Law is true. Also explain why there can be only two relative prices rather than three independent absolute prices in a Walrasian equilibrium of a general equilibrium model with three markets. (15 points)