

## 國立台灣科技大學九十六學年度碩士班招生試題

系所組別：企業管理系碩士班甲組、乙組、甲一高職教師組、乙一高職教師組  
科目：經濟學

「總分100分」

1. With regard to “Why do people save?”, please explain based upon different theories. In addition, why do Japanese households save so much? Why do U.S. households save so little? How about households in Taiwan? Please explain. (25%)
2. Taiwan is a small open economy. Based upon the important characteristics, please explain, under both floating exchange rate and fixed exchange rate respectively, what are the effects of the “changes in both fiscal policy and monetary policy” on “exchange rate” and “income”, and in addition on “interest rate” as well. (Hint: you can answer them by graph or based upon appropriate theories) (25%)
3. Please answer the following question:
  - (1) Mr. Lee is endowed with  $R^{\wedge} = 24$  hours of leisure per day and  $I^{\wedge} = 40$  units of income (dollars). His Marginal Rate of Substitution in Resources supply is  $MRS_R = I/R$  and the market wage rate is  $W_L = 10$ . How many hours of labor will Mr. Lee, and what will be his income from labor? (10%)
  - (2) Please comment the statement that “in general there is a necessary relation between the importance of a commodity X (i.e. the share of the consumer budget spent on X) and its price elasticity.” (10%)
  - (3) When prices are  $(p_1, p_2) = (1, 2)$  a consumer demands  $(x_1, x_2) = (1, 2)$ , and when prices are  $(p_1, p_2) = (2, 1)$  a consumer demands  $(x_1, x_2) = (2, 1)$ . Is this behavior consistent with the model of maximizing behavior? (5%)
4. Consider a market with one large firm and many small firms. The supply curve of the small firms taken together is:  $S(p) = 100 + P$ . The demand curve for the product is:  $D(p) = 200 - p$ . the cost function for the one large firm is:  $c(y) = 25y$ .
  - (1) Supposed that the large firm is forced to operate at a zero level of output, what will be the equilibrium quantity and price? (5%)
  - (2) Suppose now that the large firm attempts to exploit its market power and set a profit-maximizing price. In order to model this we assume that customers always go first to the competitive firms and buy as much as

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there are able to and then go to the monopolist. In this situation, what is the equilibrium price? And what are the equilibrium quantity supplied by the monopolist and the competitive firms, respectively? (10%)

- (3) Finally suppose that the large firm could force the competitive firms out of the business and behave as a real monopolist. What will be the equilibrium price and quantity (5%)
5. The production function for good  $y$  is  $y = \max\{10X_1, 4X_2\}$  where  $X_1$  and  $X_2$  are the amounts of factors 1 and 2, find the cost function for good  $y$ . (5%)