

1. Suppose the price of clothing is \$2 per unit, the price of food is \$4 per unit, and the consumer's budget is \$32 per period.
  - (a) First, establish the condition(s) for consumer equilibrium. (4 points)
  - (b) Now, if the price of food falls from \$4 to \$2, other things constant, the quantity of food demanded increases.
    - (i) Explain briefly and use a graph with indifference curves and budget lines to indicate the income and substitution effects of the lower food price. (6 points)
    - (ii) Derive the demand curve of food. (4 points)
  
2. Suppose that you are hired by the city to set the price for a ticket on the city subway system. This system is characterized by a set of costs that are largely fixed and therefore independent of ridership (乘車人次). In order to maximize (net) revenues to the city, you will set the price of a subway ticket at where along the demand curve. Explain in detail. (6 points)
  
3. Suppose that the cross-price elasticity of compact disks (CD) to cassettes is 0.8. What would happen to the revenues to cassettes producers if CD prices increased by 10%, assuming that the cassette prices did not change? Be specific in your answer. Verify your answer by diagrams of CD and cassettes, separately. (3 points)
  
4. (環保) Suppose ABC Power Plant (發電廠) generates pollution. If government imposes Pigovian (excise) tax (貨物稅) on ABC Co. to bring about efficiency, however, the consumers will share the larger part of tax burden. Why? Use a graph to clearly indicate the appropriate amount of Pigovian tax and illustrate your argument. (8 points)
  
5. Suppose the world prices for automobiles are below the Taiwan's domestic price, but the government requires that car imports are subjected to a tariff (關稅) at 30%.
  - (a) Use a diagram to show who gains and who loses from such a policy. And explain why trade restrictions are so common? (6 points)
  - (b) How could you estimate the net welfare loss (deadweight loss) from such a diagram? (4 points)
  - (c) The tariff rate will be lowered to 15% after Taiwan becomes a member of the World Trade Organization (WTO, 世界貿易組織). What kind of responses to such a result would you expect from the automobile industry and the domestic consumer? (4 points)

六、複選題 (就所選之答案以圖、文或公式簡要說明之, 否則不予計分) (40%)

- (For the IS-LM model) Given  $C=102+0.7Y$ ,  $I=150-100i$ ,  $M_s=300$ ,  $M_t=0.25Y$ , and  $M_t=124-200i$ . ( $M_s$  is the supply of money,  $M_t$  is the transaction precautionary demand for money.  $M_s$  is the speculative demand for money.) (a) the equilibrium level of income is 750, (b) the equilibrium rate of interest is 0.12 (c) the level of  $C$  is 662, (d) the level of  $I$  is 136, (e) if  $M_s$  is increased to be 350, the equilibrium level of income will decrease and the equilibrium rate of interest will increase. (10%)
- 投資需求函數  $I = I_0 - ar$  中,  $I_0$  為自發性投資,  $a$  為誘發性投資。前兩年台灣物價平穩,  $a$  之值極小, 於此情況下, 下列何種經濟政策促進經濟成長最為有效? (a) 擴張財政政策, (b) 緊縮財政政策, (c) 擴張貨幣政策, (d) 擴張財政政策與緊縮貨幣政策並用, (e) 擴張貨幣政策與緊縮財政政策並用, (f) 央行加強干預以維持匯率不變。 (10%)
- 在浮動匯率制度下, 政府無任何干預事項, 下列哪一些現象為真? (a) 若國際收支有盈餘, 台幣會升值, (b) 降低存款準備率, 台幣會貶值, (c) 貨幣供給增加, 會使外匯存底增加, (d) 貨幣政策會比固定匯率制度下有效, (e) 於資金移動不容易下, 政府支出增加會使台幣升值, (f) 加入世界貿易組織 (WTO), 台幣會升值。 (10%)
- 有關物價方面, 下列哪一些現象為真? (a) 物價下降會使總產出值上昇, (b) 課征進口關稅將使國際價格下降或不變, (c) 出口補貼將使國際價格下降或不變, (d) 進口限額政策將使國內價格上漲, (e) 只要物價膨脹是在大眾預期之內, 菜單成本與皮鞋成本皆會產生存在 (不管經濟社會是否充分調整), (f) 若出現停滯性膨脹, 社會之痛苦指數一定會增加。 (10%)

七、計算題。 (10%)

如果有一個小國, 它的石油供需情形如下:

供給:  $P = Q^s$ , 需求:  $Q^d = 60 - 2P$

請問:

- 自給自足下, 石油的產量及價格為多少? (2%)
- 如果該小國可以用每單位 15 元的價格由世界市場上進口任何數量的原油, 該小國的石油生產及消費各為多少? 進口量為多少? (2%)
- 如果該國政府認為, 每單位 15 元的進口價格太低, 將對本國生產不利; 於是, 課徵 20% 的從價關稅, 這時國內價格為多少? 生產及消費各為多少? 進口量又為多少? 關稅稅收為多少? (3%)
- 如果政府不用關稅方式, 而以配額之方式限制進口數量; 配額應設定在幾個單位? 這時國內價格可以賣到多少? (3%)