

國立臺北大學 113 學年度碩士班一般入學考試試題

系（所）組別：財政學系

科 目：經濟學

第1頁 共2頁

☐可 ☒不可使用計算機

Answer all questions. For full credit you must show all your work.

1. 何謂 GDP 與 GNP？你認為在什麼樣的狀況下，一個國家的 GDP 會大於 GNP？（10%）
2. 在一個封閉的經濟體下，若政府透過加稅來支應擴張性的政府支出，對個人及國家整體儲蓄會有什麼影響，試分析說明。（10%）
3. 試分析說明 CPI 和 GDP deflator 的差異。（10%）
4. 試以 IS—LM 模型分析說明在浮動匯率制度下，當本國政府採取緊縮性的貨幣政策時，對本國及外國的均衡實質利率、產出、物價水準及匯率有何影響？（10%）
5. A closed economy is in a steady state with no productivity growth. Because of a disease outbreak, the working population and labor productivity decrease. According to the Solow model, what are the effects on steady-state capital per worker, output per worker, consumption per worker, and the long-run growth rate of the total capital stock?（10%）
6. Mike's uncompensated demand for candy is given by the equation $Q = 15/p^2$, where Q is the quantity of candy and p is the price. Suppose that the price of candy rises from \$1 to \$3. Please compute the change in consumer surplus.（5%）
7. Suppose a monopoly can produce any level of output it wishes at a constant marginal (and average) cost of \$5 per unit. Assume the monopoly sells its goods in two different markets separated by some distance. The demand curve in the first market is given by
$$Q_1 = 55 - P_1,$$
and the demand curve in the second market is given by
$$Q_2 = 70 - 2P_2,$$
Assume this monopolist could maintain the separation between the two markets (no arbitrage at all). What are the total profits in this situation?（8%）
8. Assume that a competitive firm's short-run total cost curve is $TC = Q^3 - 6Q^2 + 15Q + 20$. What is this firm's short-run shutdown price?（5%）

試題隨卷繳交

接背面

國立臺北大學 113 學年度碩士班一般入學考試試題

系（所）組別：財政學系

科 目：經濟學

第2頁 共2頁

☐可 ☒不可使用計算機

9. Lionel, who has a relatively high income I , has an altruistic feeling toward Cristiano, who lives in such poverty that he essentially has no income. Suppose Lionel's preferences are represented by the utility function

$$U_1(c_1, c_2) = c_1^\alpha c_2^{1-\alpha},$$

where c_1 and c_2 are Lionel and Cristiano's consumption levels, appearing as goods in a standard Cobb-Douglas utility function. Assume that Lionel can spend his income either on his own or Cristiano's consumption (through charitable donations) and that \$1 buys a unit of consumption for either (thus, the "prices" of consumption are $p_1 = p_2 = 1$).

- Solve for Lionel's optimal choices and demonstrate how they change with α . (6%)
- Solve for Lionel's optimal choices under an income tax rate t . How do his choices change if there is a charitable deduction (so income spent on charitable donations, c_2 , is not taxed)? Does the charitable deduction have a bigger incentive effect on more or less altruistic people? Compare your result to the no-tax case. (12%)

10. Suppose the demand for pizza in a small isolated town is $p = 10 - Q$. There are only two firms, A and B , and each has a cost function $TC_A = 2 + q_A$ and $TC_B = 2 + q_B$ respectively. Compare the firms' profits if they behave as Cournot duopolists with their profits if they form a cartel and share the market equally. (14%)