

題號： 370

國立臺灣大學 110 學年度碩士班招生考試試題

科目： 經濟分析

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第一部分、回答下列 10 題單選題，每題 5 分。作答於答案卡上。

1. If the central bank pursues to maintain income constant, an expansionary fiscal policy must be accompanied by _____ monetary policy, and the central bank must allow interest rate to _____ significantly.
 - a. an expansionary, rise
 - b. an expansionary, fall
 - c. a contractionary, rise
 - d. a contractionary, fall

2. Which of the following is NOT consistent with the events leading up to the 2007-2009 financial crisis.
 - a. Increasing Leverage
 - b. Increasing House Price
 - c. Decreasing Equity
 - d. Increasing Debt

3. Which of the following event increases natural rate of unemployment?
 - a. Decrease in Government Spending
 - b. Increase in Real Money Supply
 - c. Formation of a Business Cartel
 - d. Weakening of Labor Union

4. Countries A and B are identical in all aspect, except that A is an open economy while B is a closed economy. The government in both countries decide to increase spending. Assume that prices are fixed. How does the resulting change in GDP differs.
 - a. GDP increases in B but decreases in A
 - b. GDP increases in both countries, but more so in A
 - c. GDP increases in both countries, but more so in B
 - d. GDP increases in both countries, by the same amount

5. When a nation's current account deficit exceeds its financial account surplus, the overall _____ in the "balance of payments outcome" means that the nation's central bank is _____ foreign central banks.
 - a. surplus, lending to
 - b. surplus, borrowing from
 - c. deficit, lending to
 - d. deficit, borrowing from

6. Which of the following would result in a real appreciation of the United States Dollar with respect to the New Taiwan Dollar?
 - a. Increase in US Dollar per New Taiwan Dollar nominal exchange rate
 - b. Increase in Price Index of Taiwan
 - c. Increase in Price Index of United States
 - d. None of the Above

7. Which of the following would contribute towards an increase in debt/output ratio, all other things equal. Assume that nominal interest rate is fixed and there is no Seigniorage.
 - a. Slower Inflation
 - b. Faster Real Output Growth
 - c. Decreased Government Spending
 - d. None of the Above

見背面

8. Country A is a small open economy. An external shock led to the immediate appreciation of its currency with respect to the United States Dollar. Investor's expectations are not affected. What happens to interest rate in Country A.

- a. Increase
- b. Decrease
- c. Unchanged
- d. Uncertain

[9.10.] Consider a competitive firm with a production function $f: \mathbb{R}_+^n \rightarrow \mathbb{R}^2$ with n inputs, each of which costs w_i per unit, that produces two outputs that are priced at p_i , with quantity q_i , $i = 1, 2$. A regulator is concerned with the firm producing too little and hence imposes a penalty for producing quantity less than Q_i ; specifically, the penalty for underproduction of output i is $\lambda_i(Q_i - q_i)$ (i.e., the firm pays this amount if it produces less than Q_i). Let w be the vector of cost $\{w_1, w_2\}$ and λ be the vector of $\{\lambda_1, \lambda_2\}$

9. Which of the following statements are true?

- a. The firm's profit is concave in the vector w
- b. The firm's profit is convex in the vector w
- c. The firm's profit is both concave and convex in the vector w
- d. The firm's profit is neither concave nor convex in the vector w

10. Which of the following statements are true?

- a. The firm's profit is concave in the vector λ
- b. The firm's profit is convex in the vector λ
- c. The firm's profit is both concave and convex in the vector λ
- d. The firm's profit is neither concave nor convex in the vector λ

第二部分 計算題 ※ 本大題請於試卷內之「非選擇題作答區」標明題號依序作答。

1. Consider a market in which there are two firms. Marginal costs for both firms are constant and equal to \$4. While both firms are free to choose their respective advertising levels, A_1 and A_2 , government regulation forces both firms to sell the product for \$5 per unit. The demand curves for the two firms are given by:

$$Q_1 = 10 - P_1 + P_2 + A_1 - A_2 + A_1A_2$$

$$Q_2 = 10 - P_2 + P_1 + A_2 - A_1 + A_1A_2$$

For both firms, the total cost of producing A units of advertising is A^2 (that is, A squared).

Find the Nash equilibrium levels of advertising, A_1 and A_2 . (20%)

2. The following table shows the revenue of the flower shop owner in the face of uncertain weather and there is a weather company to promote a 100% accurate weather forecasting system.

	40% (rainy)	60% (sunny)
conservative inventory strategy	1600	1600
aggressive inventory strategy	400	3600

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- (a) How much is a risk neutral owner willing to pay for this system? (10%)
- (b) If the owner's utility function is $U = M^{0.5}$, he will adopt an aggressive inventory method. If the price of weather insurance that guarantees revenues of 3600 is 1000, is the owner willing to pay for the weather insurance? (10%)
- (c) According to (b), what is the highest insurance price the owner is willing to pay? (10%)

試題隨卷繳回