

國立中山大學 107 學年度碩士暨碩士專班招生考試試題

科目名稱：經濟學【企業管理學系企業管理碩士班甲班】

題號：441001

※本科目依簡章規定「不可以」使用計算機(混合題)

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壹、單選題〈1 至 10 題為中文題，每題 4 分；11 題至 20 題為英文題，每題 4 分；總計 80 分〉

- 你現在存 1,000 元的一年期定期存款，一年後的本利和為 1,050 元。同時，在這一年 CPI 由 100 上升為 103。在此情況下，名目利率為百分之____，實質利率為百分之____。
 - 5, 3
 - 3, 5
 - 5, 2
 - 2, 5
- 若 P_x 為商品X的名目價格， P_y 為商品Y的名目價格，吾人知道 P_x/P_y 為一單位X可以換到Y的單位數。若 i 為當期名目利率， r 為當期實質利率， π 為通貨膨脹率；則一單位當期實質消費可以換到多少單位的下一期實質消費？
 - r
 - $(1+i)/(1+\pi)$
 - i
 - $(1+i)/(1+r)$
- 對借款者(debtor)而言，當(當期)利率上升時，下列何者敘述正確？
 - 因所得效果而當期消費增加
 - 因所得效果而未來消費減少
 - 因替代效果而當期消費增加
 - 因替代效果而未來消費減少
- 如果縱軸為實質工資，則下列何者不會造成勞動需求曲線向右移動？
 - 生產技術進步
 - 產品價格上升
 - 資本數量增加
 - 以上(a)(b)(c)都會使勞動需求曲線右移
- 如果貨幣數量的衡量為 M2，則定期存款利率上升時，實質貨幣需求將
 - 上升
 - 下降
 - 不受影響
 - 題意錯誤；因為貨幣數量的衡量沒有 M2，只有通貨淨額和 M1 兩種
- 如果投資支出對利率的反應愈敏感時，
 - LM 線愈接近水平，財政政策相對有效
 - LM 線愈接近垂直，財政政策相對有效
 - IS 線愈接近水平，貨幣政策相對有效
 - IS 線愈接近垂直，貨幣政策相對有效
- 根據短期總供給方程式：
實際產出 = 自然產出 + $\alpha \cdot (\text{實際物價} - \text{預期物價})$
 - 當 α 值愈大時，短期總合供給曲線愈陡
 - 當 α 值愈大時，短期總合供給曲線愈平坦
 - 當 α 值愈大時，長期總合供給曲線愈陡
 - 當 α 值愈大時，長期總合供給曲線愈平坦

背面有題

試題隨卷繳回

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8. 下列有關菲力浦曲線與短期總合供給曲線之相關敘述何者不正確？
- 短期總合供給線與短期菲力浦曲線具有一對一的對應關係
 - 自然產出上升使短期菲力浦曲線左移
 - 總合需求曲線在失業率與通貨膨脹率的平面上為正斜率
 - 在沒有供給面衝擊時，長期菲力浦曲線為垂直線
9. 下列敘述何者不正確？
- 經濟預測困難是部份經濟學家不贊成主動積極的(active)總合需求政策的原因
 - 政策施行及其效果的時間落後(lags of implementation for macroeconomic policies)是部份經濟學家不贊成主動積極的總合需求政策的原因
 - 財政政策的內在時間落後(inside lag)很短
 - 貨幣政策的外在時間落後(outside lag)很長
10. 若美國等大型開放經濟體系實施擴張性財政政策，將使台灣等小型開放經濟體系之經常帳餘額_____
- 上升
 - 下降
 - 不變
 - 題意資訊不足，無從判斷
11. The table below shows the tons of wheat and rice that can be produced in Country A and Country C in one year, using the same amount of productive resources. According to the theory of comparative advantage, what should farmers in Country C do?
- | | Wheat | Rice |
|-----------|-------|------|
| Country A | 3000 | 1500 |
| Country C | 750 | 500 |
- They should export wheat to Country A and import rice.
 - They should export rice to Country A and import wheat.
 - They should export both rice and wheat to Country A.
 - They should import both rice and wheat from Country A.
12. In an economy where heating oil is the primary source of heat for most households, new supplies of natural gas are discovered. Natural gas provides heat at a lower cost. Suppose the demand for heating oil has a cross-price elasticity with respect to the price of natural gas of 2.1. What is the most likely effect of these discoveries on the market price and quantity of heating oil produced?
- The equilibrium quantity will increase but the equilibrium price will decrease.
 - The equilibrium quantity will decrease but the equilibrium price will increase.
 - The equilibrium quantity and price will both decrease.
 - The equilibrium quantity and price will both increase.
13. Mr. Lin is an onion farmer. He cannot understand why his revenue ($P \cdot Q$) always decreases when he and other farmers experience a bumper harvest (豐收), but his revenue usually increases after a typhoon reduces the onion production for most farmers. Which one below is the possible reason?
- Onions are luxury goods.
 - Onions are inferior goods.
 - The own-price elasticity of demand for onions is very small.
 - The price elasticity of supply for onions is very big.

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14. Butt-head (大頭蛋) has a workshop of furniture. He needs workers (L) and capital (K) to run this workshop, and the production function is $Y = \min\{2L, 15K\}$, where Y is the output per month (in units). He can hire his friend, Beavis (癩四), and others. The max wage they can earn from other employers is NT30000 per month. In this month, he has already rented 2 units of K, and the rental is NT200000 for each unit of K per month. What is the **average cost function** for Butt-head in this month (**short run**)?
- 60000, if $Y < 30$
 - $400000/Y$, if $Y < 30$
 - $850000/Y$, if $Y < 30$
 - $15000 + (400000/Y)$, if $Y < 30$

15. A company runs a bus-route between Taipei and Kaohsiung; the average cost for a bus to take a passenger from Taipei to Kaohsiung is NT300 when it operates at full capacity (滿載). Consider the case where there remain two empty seats on a bus when this bus is **leaving** the bus station. If the manager of the bus station stops this bus, and ask the driver to take two more passengers in NT100 for utilizing the two empty seats, how can you explain the manager's decision?
- This decision is not smart because it will cause a NT400 loss.
 - This decision is not smart because the total revenue for this trip will be smaller than its total cost.
 - This decision is rational because the average revenue of each passenger for this trip is still bigger than its average cost.
 - This decision is rational because the marginal cost to take these two more passengers is almost zero.

16. Your community is considering hiring guards (守衛). If they choose to do this, the payment for a guard is NT38500 per month. Each household's marginal benefit from guards each month is shown in the following table. How many guards should you hire for the **WHOLE** community?

Household	Marginal benefit for an additional guard		
	The first one	The second one	The third one
A	NT40000	NT30000	NT20000
B	NT5000	NT4000	NT3000
C	NT3000	NT2500	NT2000
D	NT2000	NT1500	NT1200
E	NT1000	NT900	NT800

- 0
- 1
- 2
- 3

17. In a country where only two goods are produced and consumed, the production and consumption of Good B results in external benefits, while the production and consumption of Good X results in external costs. Would unregulated markets produced too much or too little of Good B and Good X, compared to the efficient output levels for these products?
- They would produce too much Good B and also too much Good X.
 - They would produce too little Good B and also too little Good X.
 - They would produce too much Good B but too little Good X.
 - They would produce too little Good B but too much Good X.

18. Two shops, C and F, sell apple juice in a small village. Shop C usually puts more sugar in their apple juice than Shop F. **Villagers have different preferences on sweetness** (村民對甜味的偏好不同). Two shops **compete on price**. Assume that the marginal cost for C, MC_C , was NT40 for each additional cup of apple juice, and the marginal cost for F, MC_F , was NT35. What are the **possible prices of a cup of apple juice for C and F in the Nash equilibrium**?

- $(P_C^*, P_F^*) = (35, 35)$
- $(P_C^*, P_F^*) = (40, 35)$
- $(P_C^*, P_F^*) = (40, 40)$
- $(P_C^*, P_F^*) = (45, 40)$

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19. Below is a game with a payoff matrix, where Apple and Samsung decide their strategies in a new market of a VR device. If **Samsung moves first**, what is the payoff of the sub-game perfect equilibrium/equilibria (SPE: the equilibrium you get by backward induction in an extensive form game) in this game?

- a. (0,0)
- b. (0,0) & (90,40)
- c. (90,40)
- d. (70,70)

		Samsung		
		<i>L</i>	<i>C</i>	<i>R</i>
Apple	<i>U</i>	(0,0)	(30,-10)	(40,-20)
	<i>M</i>	(-10,30)	(20,20)	(90,40)
	<i>D</i>	(-20,40)	(10,90)	(70,70)

20. Consider a normal form game with 10 players. John and nine friends are having dinner at a restaurant in Ambassador Hotel. They have agreed in advance to **split the total check of their meal equally**. Each of them can choose one entrée from the menu providing two choices: a beef steak or a broiled lobster. The price of a beef steak is NT800 and John can get a benefit of NT1200 to consume a beef steak; the price of a broiled lobster is NT2000 and he can get a benefit of NT1600 to have one. All of them have the same preference. They make a choice simultaneously. What is the pure-strategy Nash equilibrium in this game?

- a. Every one chooses a beef steak.
- b. Every one chooses a broiled lobster.
- c. Five persons choose beef steaks, and the other choose broiled lobsters.
- d. There is no pure-strategy Nash equilibrium.

貳、填充題(每小格 5 分, 共 10 分; 只需填寫答案)

1. 有一資金自由移動的長期小型開放經濟體系如下：

消費函數 C : $C = 40 + 0.5(Y - 20) - 400r$, r 為國內利率,

投資函數 I : $I = 40 - 400r$

政府購買 : $G = 20$

外匯市場均衡 : $NX = 10 + 200(r^W - r)$, NX 為淨輸出, r^W 為國際利率。

假設國際利率 $r^W = 0.05$ 。

- a. IS 的方程式為__(1)___
- b. $Y =$ __(2)___。

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參、計算申論題〈共計 10 分；請簡附計算或推導過程〉

1. (10 pts) 設若國內目前有兩間公司銷售二甲苯（一種重要的石化基本原料）：第一間公司，高塑，是自己進口原油來生產；另一間公司，南貿，則是跟國外進口銷售至國內；兩間公司所銷售的二甲苯，不論是國內（高塑）自己生產的，或是南貿自國外進口的，對下游的廠商來說，品質皆同。假設國內過去每月平均對二甲苯的需求是 $Q = 300 - (1/5)P$ ， Q 是產量（單位為千公噸）， P 則為價格（單位為千美元/千公噸）。為簡化起見，假設高塑在國內市場上提供二甲苯的總變動成本是 $770Q + (3/2)Q^2$ （單位為千美元）；固定成本則為零。另南貿自國外取得二甲苯的報價（離岸價格）為 850 千美元/千公噸，再加上運送、管銷等營運費用，假設其在國內市場上提供二甲苯的總變動成本是 $1000Q$ （單位為千美元）；固定成本則為零。此兩家廠商的決策變數皆為產量；不過，在國內市場上一向是高塑先決定產量，而南貿再根據高塑所決定出的產量，決定要從國外進口多少二甲苯。
 - a. 請問，在均衡時 (under a sub-game perfect equilibrium)，此兩間公司二甲苯的銷售數量各自為何？(5 pts)
 - b. 假設今國際原油下跌，以致南貿自國外取得二甲苯的報價下跌，其在國內市場上提供二甲苯的總變動成本變為 $840Q$ 。請問在此情況下，高塑的銷售量將如何變動，而兩間公司在國內市場的二甲苯總銷售量又將如何變化 (請順帶算出正確的變動量)？(5 pts)