

注意事項

1. 本試題分為(A)個體理論與(B)總體理論兩部份。
2. 請在答案卷內分為(A)與(B)兩部分，標明題號按照順序作答。
3. 本試題包括25題複選題，每題答案不只一個，全對才計分，每題4分。

(A)個體理論(共計 12 題)48%

#Please answer the next problem 1 and 2:

1. Consider the demand functions for a pure public good $X_1 = 12 - 2P$ and $X_2 = 18 - 2P$ for two consumers, where P is the price. Suppose the price of all other commodities equal 1. If this public good is supplied by a perfectly competitive market with the marginal cost $MC = X/2$. Then,

- (a) The equilibrium price and quantity of this public good is \$4 and 10, respectively
- (b) The equilibrium price and quantity of this public good is \$5 and 12, respectively
- (c) The equilibrium price and quantity of this public good is \$5 and 10, respectively
- (d) Consumer surplus for both consumers is \$45
- (e) The total surplus (the sum of consumer surplus and producer surplus) for this public good is \$75

2. If the pure public good in the last problem is instead provided in a private market, however, Consumer 1 can become a free rider and not purchase any of the pure public good. Only Consumer 2 purchases it. Thus,

- (a) The equilibrium price and quantity of this public good for Consumer 2 is \$4.5 and 10, respectively
- (b) Consumer 1's consumer surplus is \$33.75
- (c) Consumer 2's consumer surplus is \$25
- (d) Producer's surplus is \$25
- (e) The total surplus for this public good is \$74.25

3. Considering the following utility function representing a household's preferences for commodities X_1 and X_2 : $U(X_1, X_2) = \min(5X_1, 3X_2)$ The household is facing prices $P_1 = \$1$ and $P_2 = \$3$, with a given level of income, $I = \$180$. Thus,

- (a) The optimal level of X_1 is 30
- (b) The optimal level of X_1 is 25
- (c) The optimal level of X_2 is 40
- (d) The optimal level of X_2 is 50
- (e) The budget line is $X_1 + 5X_2 = 180$

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4. Two duopolistic firms facing the demand functions

$$q_1 = 18 - 2P_1 + P_2 \quad q_2 = 18 - 2P_2 + P_1$$

With zero marginal costs. Thus,

- (a) The Bertrand equilibrium price is $P_1 = 6$
- (b) The Bertrand equilibrium quantity is $q_2 = 10$
- (c) Maximizing joint profit, the price is $P_2 = 8$
- (d) Maximizing joint profit, the profit of firm 2 is $\pi_2 = \$81$
- (e) Maximizing joint profit, the profit of firm 2 is $\pi_2 = \$72$

5. Consider the following inverse input market demand and supply functions:

$$\text{input demand } P = 10 - Q^d ; \quad \text{input supply } P = 2 + Q^s$$

- (a) Economic rent of this input is \$10
- (b) Economic rent of this input is \$8
- (c) If now the input market supply curve is $P = 8$, then economic rent of this input is \$2
- (d) If now the input market supply curve is $Q^s = 4$, then economic rent of this input is \$24
- (e) If now the input market supply curve is $Q^s = 4$, then economic rent of this input is \$16

6. Suppose Chen's Production-Possibility Curve (PPC) be given by the equation

$$\frac{f^2}{2} + g = 150 \text{ where } f \text{ is the amount of fish and } g \text{ the amount of grain she can obtain, depending on}$$

the way she divides her time and effort. Think of g as plotted on the vertical axis and f as plotted on the horizontal axis. Chen's Marginal Rate of Substitution in Consumption (the absolute value of an indifference curve) is $MRS_C = g/f$. Then,

- (a) Chen's consumptive optima: $f = 10, g = 50$
- (b) Chen's consumptive optima: $f = 10, g = 100$
- (c) If Chen is discovered by a world market in which $P_f = 5$ and $P_g = 1$, then her productive optimum is $f = 5, g = 274$
- (d) If Chen is discovered by a world market in which $P_f = 5$ and $P_g = 1$, then her productive optimum is $f = 5, g = 137.5$
- (e) If Chen is discovered by a world market in which $P_f = 5$ and $P_g = 1$, then her productive optimum is $f = 10, g = 137.5$

7. The market demand and supply functions for smart phone are:

$$\text{demand } Q^d = 26 - 2P ; \quad \text{supply } Q^s = -9 + 3P$$

When the government imposes a sales tax with a tax rate of $t = 0.5$. Associated with a sales tax,

- (a) Consumer surplus is \$36, and producer surplus is \$6
- (b) Consumer surplus is \$9, and producer surplus is \$24
- (c) Deadweight loss is \$15, and the amount of taxes collected is \$15

(d) Deadweight loss is \$10, and the amount of taxes collected is \$30

(e) Deadweight loss is \$30, and the amount of taxes collected is \$30.

8. A monopoly with the long-run average cost function LAC and associated marginal cost function LMC:

$$LAC = 6 - \frac{Q}{2} \quad ; \quad LMC = 6 - Q$$

Where Q is the output. For the monopoly's output the demand function is:

$$Q = 4.5 - \frac{P}{2}$$

(a) The full-cost pricing is $P = \$5$, and the profit is \$1.5

(b) If it's in a fully contestable market, the monopoly rent is \$1.5

(c) If it's in a fully contestable market, the monopoly rent is 0

(d) The marginal cost pricing is $P = \$3$, and the profit is 0

(e) The marginal cost pricing is $P = \$3$, and the profit is -4.5

9. In a clothes market demand function Q^d and monopoly's short-run marginal cost function SMC:

$$Q^d = 26 - 2P \quad ; \quad SMC = 3 + \frac{Q^s}{3}$$

When it is in the perfectly price-discriminating monopoly.

(a) Consumer surplus is \$24

(b) Producer surplus is \$24

(c) Total surplus of the firm is \$60

(d) Deadweight loss is \$60

(e) Deadweight loss is \$36

10. A firm facing the demand functions in two separated markets:

$$q_1 = -2P_1 + 6 \quad q_2 = 18 - 2P_2 + P_1$$

The short-run total cost function for this firm is $SRTC = \frac{1}{2} + (q_1 + q_2)$

And total output by the firm, $Q = q_1 + q_2$

(a) The profit maximized output for this firm is $Q = 4$

(b) The price elasticity of demand at the optimal output q_1 is -2

(c) The price elasticity of demand at the optimal output q_2 is -4

(d) The optimal P_1 in the market 1 is higher than P_2 in the market 2

(e) The optimal P_1 in the market 1 is lower than P_2 in the market 2

11. A consumer spends his income on food and rent. The government places a \$1 tax on food. To restore the pre-tax consumption level of food the rebate paid to consumers will be smallest when

見背面

- (a) The own price elasticity of demand for food is 2, and the income elasticity of demand for food is 5
- (b) The own price elasticity of demand for food is 5, and the income elasticity of demand for food is 5
- (c) The own price elasticity of demand for food is 2, and the income elasticity of demand for food is 10
- (d) The own price elasticity of demand for food is 5, and the income elasticity of demand for food is 10
- (e) The own price elasticity of demand for food is 2, and the income elasticity of demand for food is 2

12. Consider the game below:

		Moma's Pop	
		Have a Sweepstakes	Create a Diet Soda
Weasel's Pop	Use More Caffeine	-5, 5	10, -10
	Use Animal-Shaped Bottles	8, -8	0, 0

In the game in the payoff table, there is

- (a) A mixed strategy equilibrium, and no other
- (b) A mixed strategy and a pure strategy equilibrium
- (c) A mixed strategy and two pure strategy equilibria
- (d) A mixed strategy and four pure strategy equilibrium
- (e) No equilibrium in either mixed or pure strategies

(B) 總體理論(共計 13 題)52%

1. 台灣在 2011 年處於自然就業均衡，總需求與總供給函數分別為 $y^D = 4,000 - 250P$ 、 $y^S = 2,000 + 10(P - P^e)$ 。假設財政部決議恆常性擴張支出 260，試問此舉將產生何種結果？

- (a) 人們以靜態預期方式來形成預期物價 P^e ，短期均衡名目產出將是 $Y = 18,090$
- (b) 人們以靜態預期方式來形成預期物價，台灣面對的短期「物價衝擊」將是 10
- (c) 不論人們採取何種預期形成方式，長期實質自然產出將會等於短期實質自然產出
- (d) 當人們採取適應預期形成方式時，短期名目自然產出將會超過 2,000
- (e) 人們以理性預期方式來形成預期物價，均衡名目產出將是 $Y = 18,080$

2. 美國次貸事件引爆 2008 年國際金融海嘯，影響所及釀成百年罕見的景氣衰退。各國政府探究當中原因，發現係與金融監理寬鬆有關，因而紛紛從事金融改革。試問下列相關說法，何者錯誤？

接次頁

(a)金管會針對金融機構改制為金控公司，必須符合最低資本額要求限制，藉以規避逆選擇問題

(b)央行透過公開市場操作來紓緩景氣循環，藉以維持金融業營運穩定性，此即屬於個體金融監理

(c)各國設立金融監理機構，將是為了解決人們不願付費蒐集金融資訊的搭便車問題

(d)金管會經常公佈授信規則，要求銀行業嚴格遵守，促使銀行規避授信所需面臨的資訊不對稱問題

(e)金管會要求金融機構成立，必須符合經營階層資格限制，藉以規避道德危險問題

3.行政院主計處追蹤2011年的台灣經濟情勢變動，發現IS曲線與LM曲線同時變化，試研判何種說法可能正確？

(a)歐債危機釀成國際金融市場動盪，台股重挫衍生的財富效果，促使IS曲線更富於利率彈性，而LM曲線則更缺乏利率彈性

(b)總統大選引發政治不確定性，促使外銷訂單衰退與資金外移，導致IS曲線與LM曲線同時左移

(c)歐債危機讓人們未雨綢繆，儲蓄意願與保有預防性貨幣餘額驟增，從而改變IS曲線與LM曲線斜率

(d)上市公司呼應總統號召而紛紛調高薪資，勞工增加持有交易性貨幣餘額，用於擴張消費支出，引起IS曲線右移與LM曲線左移

(e)歐債危機引發跨國資金大幅外移，造成匯率波動，從而促使IS曲線左移與LM曲線右移

4.歐豬五國從2011年起陸續爆發歐債危機，引爆國際金融市場動盪。跨國基金為因應投資人贖回基金需求，競相賣出台股而撤出資金。面對大筆資金外流，央行彭總裁追求穩定匯率與貨幣供給，試問採取何種政策及產生效果係屬正確？

(a)央行必須買超美元，並增加發行央行定存單

(b)央行必須賣超美元，同時買回央行定存單

(c)央行執行穩定政策，將可獲取通貨膨脹稅，同時減輕央行定存單利息支出

(d)央行執行穩定政策，不僅增加鑄幣稅收入，也會降低央行定存單利息支出

(e)央行執行穩定政策，將會增加鑄幣稅收入與央行定存單利息支出

5.香港金融管理局採取港幣釘住美元的聯繫匯率制度。隨著美國聯準會在2010~2011年間實施兩次量化寬鬆貨幣政策，在透過國際資金自由移動下，試問對香港經濟活動將造成何種影響？

(a)香港對其他國家出口擴張，促使IS曲線右移

(b)香港對其他國家的貿易條件惡化，導致貿易帳出現逆差

(c)為維護港幣釘住美元匯率不變，金融管理局必須買超美元，從而擴大鑄幣稅收入

(d)港幣對其他國家貨幣的匯率升值，促使總需求曲線左移，並引起AS曲線右移

(e)港幣對其他國家貨幣的實質匯率上升，導致貿易帳出現逆差

6.立法院在某年決議將所得稅函數 $T = 100 + 0.1y$ 修正為 $T = 0.1(y - D_0) - L$ ， D 是寬減額， L 是累進差額。同一期間，央行理監事會也決議將貨幣供給函數 $M^s = 1,700 + 0.1y - 1,000r$ 調整為 $M^s = 1,300 + 0.1y - 500r$ 。台灣是採取浮動匯率制度的小型開放體系，面臨國際資金完全移動，上述兩種調整方案將造成何種影響？

- (a) IS曲線與LM曲線不僅同時右移，而且改變斜率
- (b) 均衡所得與利率將同時上漲
- (c) 貿易餘額呈現逆差，而金融帳餘額則呈現順差
- (d) 台幣匯率將趨於貶值，而利率趨於上漲
- (e) 財政部是執行緊縮性政策，而央行則是執行裝性政策

7. 通貨膨脹與失業一向是政府施政的關注焦點。試依據Friedman-Phelps對Phillips曲線的說法，判斷下列何者正確？

- (a) 就短期而言，國際原油價格飆漲將促使物價漲幅高於貨幣工資漲幅，導致短期失業率降低與實質產出增加
- (b) 通訊網路技術進步除引起短期總供給曲線右移外，長期Phillips曲線也將隨之左移
- (c) 當體系存在高額循環性失業率時，短期的實際與預期通貨膨脹率將會呈現負值
- (d) 國際農產品價格暴漲，將帶動短期Phillips曲線左移，不過長期Phillips曲線則不受影響
- (e) 人們若是採取理性預期來形成通貨膨脹預期，擴張性貨幣政策將會引起通貨膨脹率上升，實際失業率下降

8. 主計處運用實際資料驗證台灣的總支出函數，發現將可適用 $y = C(r, y) + I(r, y) + G$ 型態， $C_r, I_r < 0 < C_y, I_y$ 。為因應歐債危機對國內景氣衝擊，央行採取擴大貨幣供給策略(貨幣政策)，而財政部則是擴大公共建設支出(財政政策)。在台灣的CPI維持不變下，兩者將各自發揮的效果，試問何者正確？

- (a) 兩種政策均會擴大所得，從而增加消費與投資支出
- (b) 貨幣政策誘使消費與投資支出增加，而財政政策對消費與投資支出影響卻不確定
- (c) 財政政策誘使消費與投資支出增加，而貨幣政策對消費與投資支出影響卻不確定
- (d) 貨幣政策僅能擴大消費支出，而財政政策卻會排擠投資支出
- (e) 貨幣政策將同時擴大消費支出與投資支出，而財政政策有可能發揮拉入效果

9. 在2008~2009年的國際金融海嘯期間，台灣勞動市場頻傳「無薪休假」，失業率成為國人高度關注焦點。試問有關勞動市場運作變化，何種說法係屬正確？

- (a) 隨著廠商接獲大筆「急單」或「轉單」而讓業績好轉後，失業率將會降低
- (b) 廠商實施「無薪休假」將讓主計處公佈的失業率上升，形成循環性失業的來源
- (c) 隨著市場景氣轉趨熱絡，實質工資率呈現上漲現象，將會促使勞動供給曲線右移，而勞動需求曲線左移
- (d) 景氣低迷讓勞工將休閒視為劣等財，一旦廠商提高實質工資率，將會提高勞工增加加工時意願
- (e) 廠商實施「無薪休假」將不會引起主計處公佈的失業率上升，因其屬於隱藏性失業的一環

10. 經建會依據 Solow 成長模型預估台灣未來的經濟成長前景，而且估計台灣的生產函數為 $Y = 3N^{1/3}K^{2/3}$ ， Y 是產出， K 是資本， N 是勞動。另外，台灣的儲蓄率為 30%，資本設備的折舊率為 29%，勞動成長率為 1%。在穩定狀態下，試問下列何者正確？

- (a) 每人資本將是 27
- (b) 每人產出成長率將是 1%

- (c)經建會預估未來勞動成長率將提高為 2%，產出成長率將上升為 2%
 (d)當資本的邊際生產力等於折舊率時，每人消費將可達到最大
 (e)隨著台灣出現技術進步率為 2%，每人產出成長率將是 2%

11. 台灣央行掌握鑄幣權，在發行貨幣過程中，將可獲取鑄幣稅或通貨膨脹稅，試問何種說法係屬錯誤？

- (a)央行透過公開市場釋出貨幣，獲取的鑄幣稅將是 m ， π 是通貨膨脹率， m 是實質餘額
 (b)央行買進外匯而賺取鑄幣稅，而鑄幣稅愈多意味著台灣的 GDP 與 GNP 愈多
 (c)財政部以央行盈餘繳庫融通預算赤字，無疑是對人們課徵通貨膨脹稅
 (d)央行賺取鑄幣稅與財政部課徵通貨膨脹稅，兩者將讓總需求曲線右移
 (e)央行買進外匯，雖可賺取鑄幣稅而增加體系總需求，但在盈餘繳庫來融通政府支出，卻是增加體系的總供給

12. 某國經建會估計該國使用的總體生產函數型態為：

$$Y = \min \left[\frac{K}{5}, \frac{N}{4} \right]$$

另外，該國消費函數為 $C = 0.7Y$ ，勞動成長率為 $n = 3\%$ 。針對上述資料，試依據 Harrod-Domar 成長模型，判斷何種結果係屬錯誤？

- (a)該國經濟活動若落在保證成長率與自然成長率的軌跡，每人資本將是 1.25
 (b)該國若要維持自然成長率等於保證成長率，必須引進的外勞成長率將是 3%
 (c)該國的實際成長率 6% 將大於自然成長率 3%
 (d)經建會公佈的訊息若持續存在，該國將長期陷入失業狀態
 (e)該國保證成長率 6% 將大於自然成長率 3%

13. 張無忌安排台股投資組合，設定操作目標為 $U(r) = a + 3r + 0.5r^2 + 0.2r^3$ ， r 是資產組合報酬率。在訊息不全下，試問何種說法係屬正確？

- (a)張無忌屬於風險怯避者，操作股票將需同時考慮資產組合的變異性風險與隨機性風險
 (b)變異性風險與實際報酬率呈現正向變動，張無忌從事高風險投資，將可獲得較高實際報酬率
 (c)張無忌屬於風險愛好者，將選擇高變異性風險股票作為操作標的
 (d)若要張無忌承擔高變異性風險，將會要求較高預期報酬率補償
 (e)張無忌安排投資組合將會趨於多元化

試題隨卷繳回