

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 13 題)52%

1. A firm wants to minimize the total cost of producing 150 tons of dynamite. The firm uses two factors of production, chemicals and labor. The combination of chemicals and labor that minimizes production costs will be found where

- (a) The marginal products of chemicals and labor are equal
- (b) The ratio of the amount of chemicals used to the amount of labor used equals the ratio of the marginal product of chemicals to the marginal product of labor
- (c) The ratio of the amount of chemicals used to the amount of labor used equals the ratio of the price of chemicals to the wage rate
- (d) The production of an additional unit of dynamite costs the same regardless of whether chemicals or labor are used
- (e) None of the above

2. The equation below gives the degree of economies of scope (SC):

$$SC = (C(Q_1) + C(Q_2) - C(Q_1, Q_2)) / C(Q_1, Q_2),$$

where $C(Q_1)$ is the cost of producing output Q_1 , $C(Q_2)$ is the cost of producing output Q_2 , and $C(Q_1, Q_2)$ is the joint cost of producing both outputs. If SC is negative:

- (a) There are neither economies nor diseconomies of scope
- (b) There are economies of scope
- (c) There are diseconomies of scope
- (d) There are both economies and diseconomies of scope
- (e) There are constant economies of scope

3. A monopolist has set her level of output to maximize profit. The firm's marginal revenue is \$20, and the price elasticity of demand is -2.0. The firm's profit maximizing price is approximately:

- (a) \$0

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- (b)\$20
- (c)\$40
- (d)\$10
- (e)\$30.

4. 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 $f = 10, g = 137.5$.

5. Suppose Mary's preferences are represented by a marginal rate of substitution of good X for Y $MRS_c = \frac{2y}{x}$, that prices are $P_x = 3$ and $P_y = 1$, and that income is $I =$

180. If a ration limit $M_x = 20$ is applied to commodity X, what is the optimal consumption basket?

- (a)X = 40, and Y = 60
- (b)X = 20, and Y = 60
- (c)X = 40, and Y = 120
- (d)X = 20, and Y = 120
- (e)X = 50, and Y = 120.

6. Karl is endowed with $\bar{R} = 24$ hours of leisure per day and $I = 120$ units of income dollars per day. His marginal rate of substitution is resource supply in $MRS_r = I/R$. His wage rate is $h_L = 10$. How many hours of leisure will he have

per day?

- (a) 12 hours, and he earns 50 dollars per day from labor
- (b) 15 hours, and he earns 60 dollars per day from labor
- (c) 18 hours, and he earns 60 dollars per day from labor
- (d) 18 hours, and he earns 80 dollars per day from labor
- (e) 15 hours, and he earns 80 dollars per day from labor

7. The demand function for a certain economics book is given by $P = 20 - 0.0002Q$, P and Q are the unit price and quantity respectively. The publisher's marginal cost is $MC = 6 + 0.00168Q$. The author's royalty is 20 percent of total revenue, and wants to maximize her royalty income. Then,

- (a) The publisher's preferred price is $P=15$ and quantity $Q=5,000$
- (b) The publisher's preferred price $P=19$ and quantity $Q=5,000$
- (c) The author's preferred price $P=15$ and quantity $Q=40,000$
- (d) The author's preferred price $P=10$ and quantity $Q=50,000$
- (e) The author's preferred price $P=15$ and quantity $Q=50,000$

8. Suppose there are 100 identical firms in an initially competitive market. Market demand is given by $P = 10 - Q/200$ and market supply by $P = 1 + Q/200$. If the 100 firms formed an effective cartel, for maximum aggregate profit: (Assume that the industry supply curve is simply the horizontal sum of the firm marginal cost curve.)

- (a) the profit-maximizing price is $P = 7$, output is $Q = 600$
- (b) the profit-maximizing price is $P = 5$, output is $Q = 600$
- (c) the profit-maximizing price is $P = 7$, output is $Q = 500$
- (d) at the profit-maximizing solution, each firm is assigned to produce $q = 6$, while it would like to produce a desired output of $q = 10$
- (e) at the profit-maximizing solution, each firm is assigned to produce $q = 6$, while it would like to produce a desired output of $q = 12$.

#Please answer the next problem 9 and 10:

9. 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.

10. 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.

11. 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 $X_1 + 5X_2 = 180$

12. 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 $\pi_2 = \$72$

13. The market demand and supply functions for rice are:

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

The government imposes a support price at $P^s = 10$, and will buy up the surplus supply at the support price. Thus,

(a) Consumer surplus under the support price is \$36

(b) Producer surplus under the support price is \$24

- (c) The government spending of purchasing the surplus supply is \$150
 (d) The government spending of purchasing the surplus supply is \$130
 (e) Producer captures \$27 of the consumer surplus.

(B) 總體理論(共計 12 題)48%

1. 經建會發布景氣對策信號，顯示台灣目前環境是落在長期Phillips曲線右邊，試問何種短期經濟活動變化係屬正確？

- (a) 台灣出現循環性失業，實際通貨膨脹率高於預期通貨膨脹率，而且前者呈現下降趨勢
 (b) 摩擦性與結構性失業率總和為正，財政部必須採取擴張支出政策
 (c) 實際通貨膨脹率小於預期通貨膨脹率，而且後者呈現調低趨勢
 (d) 短期總供給曲線將因貨幣工資率下降而逐漸右移，實際通貨膨脹率將出現負值
 (e) 實際通貨膨脹率大於預期通貨膨脹率，不過後者將趨於遞減

2. 台灣屬於採取浮動匯率制度的小型開放體系。在金融帳完全自由化下，試依據Mundell-Fleming模型，判斷台灣在邁向充分均衡過程中，何種政策結果係屬錯誤？

- (a) 決策當局追求擴大產出效果，實施貨幣政策顯然優於財政政策
 (b) 財政部擴張支出將造成貿易帳逆差，但卻被金融帳順差完全抵消
 (c) 財政部擴大支出將促使台幣升值，而央行擴大貨幣供給則讓台幣貶值
 (d) 央行擴大貨幣供給，將帶動IS與LM曲線同時右移
 (e) 決策當局追求擴大產出效果，實施財政政策顯然優於貨幣政策

3. 某國主計處運用 2000~2011 年的時間數列資料，估計該國儲蓄函數 S 與投資函數 I 分別為 $S = -100 + 0.2y - 0.3a$ 、 $I = 200 + 0.1y$ ， $a = \frac{M}{P}$ 是實質資產， y 是所得， M 是貨幣供給， P 是物價。此外，該國資金氾濫，金融市場利率長期處於低檔而且攀升乏力。面對歐債危機衝擊，決策當局決定採取權衡性政策因應，試問將對經濟活動造成何種影響？

- (a) 央行增加貨幣供給將造成 IS 曲線右移，促使所得增加而帶動廠商擴大投資支出
 (b) 該國資金氾濫導致擴張性貨幣政策毫無效果可言
 (c) 央行增加貨幣供給，將透過 Keynes 效果與 Pigou 效果帶動 LM 曲線與 AD 曲線右移
 (d) 財政部擴大支出帶動 IS 曲線右移，促使利率上漲而排擠投資支出

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(e)財政部要求央行增加盈餘繳庫來融通支出增加，將會引起 IS 曲線與 AD 曲線右移

4.台大財務金融所利用Lucas供給函數估計台灣實質產出 y 與通貨膨脹率 π 的關係：

$$y = 2,000 + 0.6(\pi - \pi^e)$$

π^e 是預期通貨膨脹率。試判斷何種說法係屬錯誤？

- (a)體系達成自然就業均衡時，預期通貨膨脹率等於實際通貨膨脹率
- (b)不論央行採取何種貨幣政策，在人們採理性預期下，台灣名目產出將永遠落在2,000
- (c)當預期通貨膨脹率大於實際通貨膨脹率時，體系將出現短暫的循環性失業
- (d)在人們採取靜態預期下，財政部縮減赤字預算，將讓台灣名目產出低於2,000
- (e)當預期通貨膨脹率小於實際通貨膨脹率時，實際就業將超過自然就業

5.行政院主計處估計2012年的台灣自然實質 GDP 為 $y^* = 4,000$ ，而預估實際實質 GDP 為 $y = 3,500$ ，租稅函數為 $T = 0.2(y - D)$ ， $D = 200$ 是免稅額，實質政府支出 $G = 800$ ，而政府支出與貨幣供給擴張發揮的乘數效果均為1。在其他條件不變下，試判斷何種政府預算赤字係屬錯誤？

- (a)2012年預估將出現循環性預算赤字100
- (b)為因應歐債危機衝擊，財政部規劃增加恆常性支出50，並預擬由央行每年增加盈餘繳庫50來融通，預估實際政府預算赤字將變為120
- (c)立法院通過每年加發放農民年金200，同時將稅率提高為 $t = 0.3$ 來支應，則結構性預算赤字將變為60
- (d)財政部規劃未來每年增加舉債100，用於融通恆常性公共建設支出增加100。在公債票面利率為2%下，2012年預估循環性赤字將是80
- (e)立法院通過調整所得稅率為 $t = 0.1$ ，在政府支出維持不變下，結構性預算赤字將擴大為84

6.財政部調查國人對政府發行公債的看法，發現全體國民深信Barro-Ricardo等值理論一定成立。在此種情境下，試判斷下列政策效果的正確性？

- (a)為因應歐債危機可能的衝擊，財政部決定維持支出不變，但卻修法提高每人的免稅額度，此舉將讓IS曲線平行右移
- (b)財政部發行公債融通預算赤字，雖然增加可貸資金需求，但也刺激可貸資金供給增加，從而維持市場利率不變
- (c)財政部評估以課稅或發行公債來融通預算赤字，前者將促使利率下跌，而後者則讓利率上漲
- (d)財政部以央行增加盈餘繳庫來融通每年增加發放的老農年金，將因人們降低消費支出因應而無乘數效果

(e)財政部評估以課稅或發行公債來融通預算赤字，將發現兩者對民間消費支出影響相同

7.體系若無技術進步也無人口成長，在其他條件不變下，試依據 Solow 成長模型，判斷何者正確？

(a)縱使體系出現技術進步，但在達成穩定狀態下，每人產出成長率仍然為零

(b)在穩定狀態下，當體系的資本邊際生產力等於折舊率時，每人儲蓄將可達到最大

(c)內政部鼓勵人們生育子女，估計未來人口成長率將轉為正值，此舉將可提高穩定狀態下的每人資本

(d)財政部推出課徵奢侈稅方案，促使人們降低消費傾向，將有助於立即增加每人產出成長率

(e)假設人們生育子女的意願上升，帶動人口成長率提高，在體系達成穩定狀態下，每人產出成長率將等於人口成長率

8.趙敏進場操作台股，設定操作目標為 $U(r) = a + br + cr^2$ ， r 是資產組合報酬率。試問在訊息不全下，何種說法係屬正確？

(a)當「 $b > 0$ 、 $c > 0$ 」時，趙敏將僅選擇變異性風險最高的股票

(b)當「 $b > 0$ 、 $c > 0$ 」時，若要趙敏承擔較高的變異性風險，她將要求較高預期報酬率做為補償

(c)「高風險、高實際報酬率」將僅適用於「 $b > 0$ 、 $c < 0$ 」的效用函數型態

(d)當「 $b > 0$ 、 $c > 0$ 」時，趙敏可能會挑選預期報酬率小於零的股票

(e)當「 $b > 0$ 、 $c = 0$ 」時，趙敏安排投資組合將須考慮變異性風險

9.央行每月公佈的 $\ln M_{1B}$ 與 $\ln M_2$ 貨幣供給軌跡呈現交叉變動趨勢，試問何種關係係屬正確？

(a)隨著 $\ln M_2$ 與 $\ln M_{1B}$ 曲線相交，前者斜率小於後者斜率，此種死亡交叉將讓股市邁向空頭走勢

(b)歐債危機衝擊效果逐漸浮現， $\ln M_{1B}$ 與 $\ln M_2$ 曲線勢必因此而轉為負斜率，而且前者斜率絕對值將大於後者

(c)隨著 $\ln M_2$ 與 $\ln M_{1B}$ 曲線相交，前者斜率大於後者斜率，此種黃金交叉將讓股市邁向多頭走勢

(d)正斜率的 $\ln M_2$ 曲線將反映國內資金總額遞增，推動股市呈現多頭走勢

(e) M_2 餘額必然大於 M_{1B} 餘額，不過卻無從判定 $\ln M_{1B}$ 與 $\ln M_2$ 曲線的相對斜率大小

10.從2011年起，歐豬五國陸續陷入歐債危機，釀成國際金融市場動盪。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。面對鉅額資金外

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流，央行彭總裁基於穩定匯率與貨幣供給，必須採取何種政策因應，而可能產生效果為何？

- (a) 央行必須買超美元，同時增加發行央行定存單
- (b) 央行必須賣超美元，並且買回央行定存單
- (c) 央行執行穩定政策，除能獲取通貨膨脹稅外，同時將促使市場利率下降
- (d) 央行執行穩定政策，雖會減少鑄幣稅收入，但也將降低央行定存單利息支出
- (e) 央行執行穩定政策，雖可增加鑄幣稅收入，但卻擴大央行定存單利息支出

11. 國內第四台的證券分析師經常運用技術分析，口沫橫飛地解釋個股走勢，並且宣稱績效斐然。試判斷何種說法係屬正確？

- (a) 一旦技術分析發揮卓越績效，將意味著個股每日股價間的相關係數為零
- (b) 當投資人採取理性預期來形成預期股價時，隨著央行執行預期貨幣政策，技術分析將能發揮超越大盤績效
- (c) 股票市場若屬於半強式型態，分析師運用技術分析僅能獲取正常報酬率
- (d) 技術分析若能發揮優異績效，顯見股價對預期政策變動的反應缺乏效率
- (e) 如果投資人採取靜態預期來形成預期股價，財政部宣佈的預期減稅措施，將不會引起股價變動

12. 在2008年9月爆發國際金融海嘯，台灣的三大科學園區頻傳「無薪休假」人數超過20萬人，「恐懼失業」成為國人高度關注焦點。試問有關勞動市場運作情況，何種說法將屬正確？

- (a) 在2009年第一季後，廠商陸續接獲大筆「急單」或「轉單」，業績出現谷底回升，顯然有助於提升就業率
- (b) 科學園區大廠實施「無薪休假」，導致主計處公佈的失業率上升，此係循環性失業的來源
- (c) 由於廠商接單熱絡，提高實質工資率吸引勞工，此舉將促使勞動供給曲線左移，而勞動需求曲線右移
- (d) 景氣不好讓勞工將休閒視為劣等財，是以廠商提高實質工資率，有助於提升勞工加班意願
- (e) 廠商競相採取「無薪休假」來因應訂單匱乏窘境，將會造成自然失業率上升