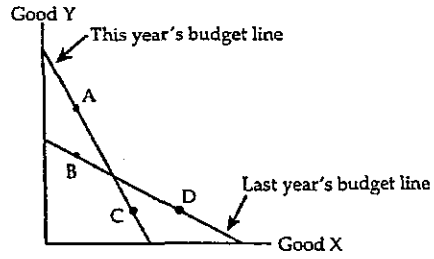
選擇題共 20 題, 每題 5 分 。單複選混合, 全對才給分。

1. The following diagram shows the budget lines faced by a consumer last year and this year.



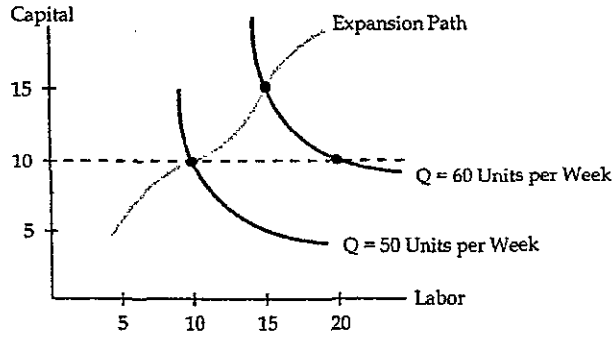
Which of the following is (are) true?
(A) The consumer's income fell.
(B) The absolute price of good X rose, and the absolute price of good Y fell.
(C) If the consumer purchased basket B last year and purchases basket C this year, we can conclude that the consumer's tastes changed between this year and last year.
(D) If the consumer purchased basket B last year and purchases basket C this year, we can conclude that the consumer's indifference curves cannot be convex.
(E) If the consumer purchased basket D last year and basket A this year, they could be equally well off in the two years.

2. Which of the following is (are) true?
(A)The substitution and income effects are in opposition when the price of an inferior good changes.
(B) If the price of a non-Giffen good falls, then the income effect causes a rise in the quantity demanded.
(C) All Giffen goods must be inferior goods, but not all inferior goods are Giffen goods.
(D) Consider a usual shape utility function only: the substitution effect insures that anytime there is a change in the price of a good, the quantity demanded along a compensated demand curve also changes.
(E)The income elasticity of demand is equal to the slope of the Engel curve.

3. Which of the following statement(s) is (are) true?
(A) If the total benefits received from drug enforcement exceed its total costs, then the government should expand its drug enforcement activity.
(B) Higher fixed costs may cause a firm to shut down its operations but will not otherwise affect its production and pricing decisions.
(C)When faced with a rent increase, the firm's best policy is to use a small price increase to compensate for some, but not all, of the loss.
(D) When the price of fabric falls, it does not benefit a clothing manufacturer to lower its prices since that will only reduce its profit margin.

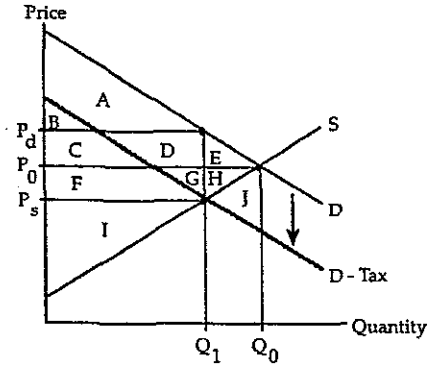
接背面

4.The following questions refer to the diagram below. The wage rate is assumed to be $12 per hour, the rental rate is assumed to be $6 per hour, and capital is assumed to be fixed in the short run at 10 hours.



(A) The short-run average cost of producing 60 units of output per week is $5 per unit
(B)The long-run total cost of producing 60 units of output per week is $180
(C)By comparing the two points on the expansion path, we can conclude that this technology exhibits decreasing returns to scale.
(D) A firm's SRAC (Short Run Average Cost) curve is tangent to and lies above the LRAC (Long Run Average Curve) curve.
(E) A firm's SRAC is greater than LRAC, which forces the LRAC curve to be upward sloping.

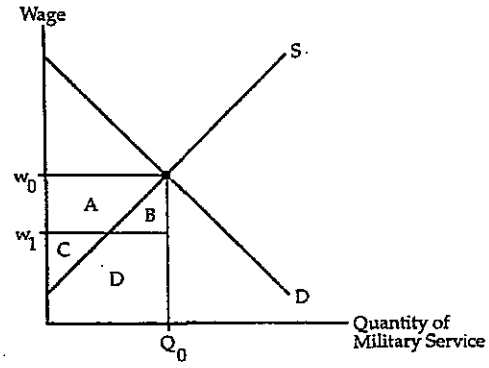
5. Consider the effects of a sales tax imposed on consumers. The initial price and quantity are P_0 and Q_0, respectively. After the tax is imposed, the equilibrium quantity is Q_1, firms receive the price P_s, and consumers pay the price P_d.



(A) After the tax is imposed, consumers' surplus is equal to area B.
(B) Area C + D + F + G is the tax revenue collected by the government.
(C) After the tax is imposed, social gain is equal to area B + C + F + I - J.
(D) After the tax is imposed, the deadweight loss is equal to area E + H.
(E) Prior to the sales tax, Producer surplus was F+G+H+I+J

接次頁

6. The following graph shows the supply and demand for military service.



(A) Suppose the government relies on a volunteer army of size Q_0 and pays soldiers the wage w_0. Then area A + C represent the opportunity cost of the volunteers' service.

(B) Suppose the government relies on a volunteer army of size Q_0 and pays soldiers the wage w_0. Then area A + C represent the rent earned by the soldiers.

(C) Suppose the government relies on a volunteer army of size Q_0 and pays soldiers the wage w_0. Then area A + C represent the opportunity cost of the volunteers' service.

(D)Suppose the government drafts Q_0 persons into the army and pays them the wage w_1. In this situation, the area B + D underestimates the cost of the army to society.

(E) Suppose the government drafts Q_0 persons into the army and pays them the wage w_1. In this situation, the area B + D overestimates the cost of the army to society.

7. Suppose Mr A' s Utility function is min{G/2, V}, and I, Pg, and Pv refer to his income and market price for G and V, respectively. Which of the following is (are) true?

(A) When the prices of G and (or) V change, Mr. A will respond by altering the ratio of G/V he consumes

(B) Mr. A's demand for V is $\frac{I}{Pg + 2Pv}$.

(C) Mr. A's demand for G is $\frac{2I}{2Pg + Pv}$

(D) Mr A's indirect utility function is I*(2Pg+Pv).

(E) Mr A's expenditure function is V*(2Pg+Pv)

接背面

8. The demand curve in Sector 1 of the labor market is $L_1 = a - bw$. The demand curve in Sector 2 is $L_2 = c - dw$. The supply curve of labor for the entire market is $L = e + fw$. In equilibrium, $L_1 + L_2 = L$.

Which of the following is (are) true?
(A) with no minimum wage, equilibrium wage w = (a + c – e)/(b + d + f)
(B) with no minimum wage, equilibrium employment at sector 2, L2 = c – d(a + c – e)/(b + d + f)

(C)When we impose the minimum wage ($\underline{w}$) in Sector 1 ("the covered sector") only, equilibrium wage w2 = (a + c – e - b$\underline{w}$)/(d + f)

(D) When we impose the minimum wage ($\underline{w}$) in Sector 1 ("the covered sector") only, the labor demand for sector 2 is that L2 = c – d(a + c – e – bw)/(d + f).

(E) When the minimum wage $\underline{w}$ applies to the entire labor market, the employment equilibrium is that L = a + c – (b + d)w.

9. There are many buyers who value high-quality used cars at the full-information market price of $1000 and lemons at $500. There are a limited number of potential sellers who value high-quality cars at V1<1000 and lemons at V2<500 (V1>V2). Everyone is risk neutral. The share of lemons among all the used cars that might potentially be sold is 1/2. Let P be the most buyers are willing to pay for a car of unknown quality. Which of the following (is) are true?
(A) P=700
(B) If V1=990, V2=490, then all cars are sold.
(C) If V1=760, V2=450, then only lemons sold
(D) If the share of lemons among all the used cars that might potentially be sold is 1/4, then it is possible that all cars are sold
(E) This "Lemon" problem was first introduced by Joseph Stiglitz, the 2001 Nobel Prize winner in Economics.

10. Which of the following is (are) true?
(A) Compensated demand curve is always steeper than the uncompensated demand curve.
(B) If prices in all markets are very low, then there will be excess demand in all markets.
(C) In a two-person two-good Edgeworth economy, all points on the contract curve are Pareto efficient and can not be blocked.
(D) If the divorce law requires "bilateral agreement", then the "property right of marriage" is assigned to the person who first proposes the divorce.
(E) People might still invest in education even though education has no effect on one's productivity.

接次頁

11. 甲爲獨占廠商, 消費者有學生與上班族兩類。學生市場的需求函數爲:

$$q_1 = 50 - p_1/2,$$

上班族的市場需求爲:

$$q_2 = 100 - p_2,$$

p_i、q_i 分別爲價格與需求量。令 q 代表甲的總銷售量, $q = q_1 + q_2$。甲的總成本函數爲 $TC(q) = q^2$。甲可以藉由檢驗學生證, 區分消費者的身分。他考慮應如何在兩市場定價來極大化利潤。

(A) 學生市場的邊際收入函數爲: $MR(q_1) = 100 - 4q_1$

(B) 學生市場的邊際收入函數爲: $MR(q_1) = 50 - q_1$

(C) 上班族市場的邊際收入函數爲: $MR(q_2) = 100 - q_2$

(D) 上班族市場的邊際收入函數爲: $MR(q_2) = 200 - q_2$

(E) 以上皆非

12. 承續前題。甲會將生產的 q 單位配置在兩市場來極大化總收入 $TR(q)$, 令 $MR(q) = dTR(q)/dq$。

(A) $q_1 = q/2$

(B) $q_1 = q/3$

(C) $MR(q) = 100 - q/2$

(D) $MR(q) = 100 - 4q/3$

(E) 以上皆非

13. 承續前兩題。本小題將甲的生產成本納入考慮, 請問甲極大化利潤時, 下列何者爲眞? (η_1、η_2 爲最適決策下, 兩市場的需求價格彈性絕對值。)

(A) $p_1 < p_2$

(B) $p_1 = p_2$

(C) $\eta_1 < \eta_2$

(D) $\eta_1 = \eta_2$

(E) $q = 30$

14. 以下 normal form 之賽局 G 中, A 有 u、d 兩個單純策略, B 有 l、r 兩個單純策略。報酬矩陣中第1 (2) 個數字爲 A (B) 的報酬。

	l	r
u	1,2	2,1
d	4,1	1,0

請問右列何者爲 Nash 均衡。

(A) (u, l)

(B) (u, r)

(C) (d, l)

(D) (d, r)

(E) 以上皆非

接背面

15. 承續前題。考慮一個新的賽局 H: A 先在 s、t 兩者中二擇一。若 A 選 s, A 將與 B 進行前小題的賽局 G。若 A 選 t, 兩人的報酬各爲3, 且賽局結束。若考慮賽局 H 之 subgame perfect equilibrium, 下列何者爲眞?

(A) A 先選 s

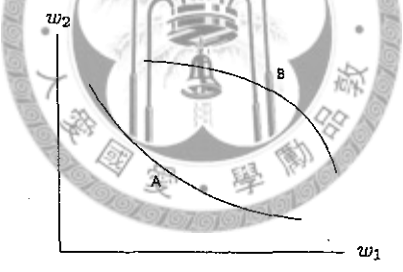
(B) 若進行至賽局 G, A 會選 u

(C) 若進行至賽局 G, B 會選 l

(D) A 的報酬爲3

(E) B 的報酬爲1

16. X 的期望效用函數爲: $U = \sqrt{w} - e$, w 爲其收入, e 爲其努力程度。X 爲 Y 工作, 其努力程度爲 $e = 5$, 這是 Y 可以監控的。但 X 工作爲 Y 帶來的收入 R 不確定, 有1/3的機率爲\$90, 2/3的機率爲\$60。Y 考慮收入爲\$90與\$60時, 付給 X 的薪水分別爲 w_2 與 w_1。所以, X 的期望效用將爲: $EU = \sqrt{w_2}/3 + 2\sqrt{w_1}/3 - 5$, X 追求期望效用之極大。請考慮下圖來作答。



(A) X 的無異曲線如上圖 A 所示

(B) X 的無異曲線如上圖 B 所示

(C) X 愛好風險

(D) X 厭惡風險

(E) 以上皆非

17. 承續前題。X 無其他工作機會, 亦即若他不爲 Y 工作, $w = e = 0$。Y 爲風險中立 (risk-neutral), Y 追求淨收益 ($E\pi = ER - w_2/3 - 2w_1/3$) 極大。請問 Y 所設計的薪資給付條件下, 下列何者爲眞?

(A) X 的期望效用 $EU < 0$

(B) $w_2 > w_1$

(C) $w_2 = w_1$

(D) $E\pi = 40$

(E) $E\pi = 50$

接次頁

18. 承續前兩小題。今 Y 發現若 X 將努力程度 e 由5提高到6, 則 X 工作帶來收入爲\$90的機率可增加爲2/3, 爲\$60的機率降爲1/3。但 Y 無法完全監督 X 的工作, X 是否眞的將 e 自5提升爲6, 只有 X 知道, Y 無法證明。所以 Y 給 X 的薪資無法爲 e 之函數, 只能如之前, 隨收入 R 而定。在此新狀況下, 下列何者爲眞?

(A) 若 $w_1 = w_2$, 則 X 選擇 $e = 5$

(B) 若 $\sqrt{w_2} - \sqrt{w_1} = 1$, 則 X 選擇 $e = 5$

(C) 若 $\sqrt{w_2} - \sqrt{w_1} = 2$, 則 X 選擇 $e = 6$

(D) Y 的最適契約中, $w_1 = w_2$

(E) Y 的最適契約中, $w_1 < w_2$

19. a、b 兩人同住, 各自擁有10單位私有財 (private good) y。私有財若不直接消費, 可以至市場換回公共財 (public good) x, 而市場上兩種財貨的價格相同。a 的消費效用函數爲: $U_a = xy_a$, b 的爲: $U_b = xy_b^2$, 其中 y_a、y_b 爲兩人各自消費私有財的數量。請問下列何種財貨的配置方式具 Pareto 效率性?

(A) $x = 9$, $y_a = 4$, $y_b = 7$

(B) $x = 9$, $y_a = 7$, $y_b = 4$

(C) $x = 9$, $y_a = 5.5$, $y_b = 5.5$

(D) $x = 8$, $y_a = 4$, $y_b = 8$

(E) $x = 8$, $y_a = 8$, $y_b = 4$

20. 承續前題。如果 a、b 各自決定要買回來幾單位的公共財, 令 x_a、x_b 分別表示兩人各自購置之數量, 則公共財總量爲 $x = x_a + x_b$。令 MRS_a、MRS_b 爲兩人對兩種財貨的邊際替代率之絕對值, $MRS_a = |dy_a/dx|$, $MRS_b = |dy_b/dx|$。考慮 Nash 均衡 (x_a, x_b), 下列何者爲眞?

(A) $MRS_a > MRS_b$

(B) $MRS_a = MRS_b$

(C) $MRS_a < MRS_b$

(D) $MRS_a + MRS_b = 1$

(E) $MRS_a + MRS_b > 1$

試題隨卷繳回