

臺灣綜合大學系統 108 學年度學士班轉學生聯合招生考試試題

科目名稱	經濟學	類組代碼	共同考科
		科目碼	E0021

※本項考試依簡章規定各考科均「不可以」使用計算機 本科試題共計 7 頁

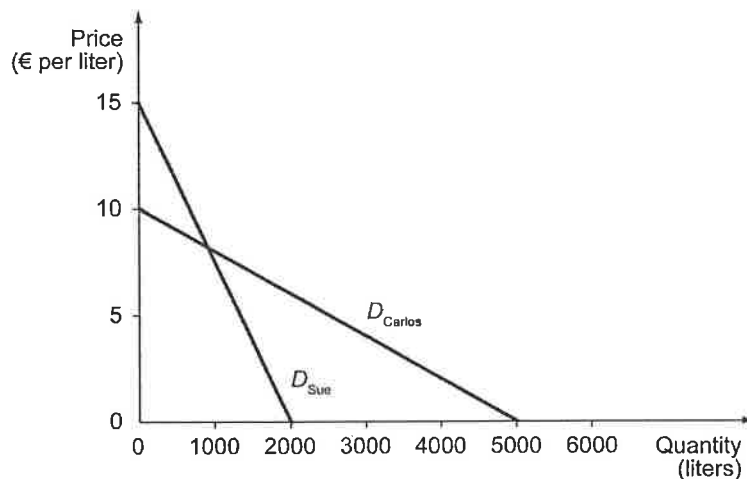
請於答案卷上作答，否則不予計分

I 單選題，每題 3 分，共 60 分。

作答時請由左至右依序答題，每回答五題後，換至下一行。

- Which of the following examples best describes the concept of diminishing marginal benefit?
 - If the weather gets cold, the demand for ice cream will fall.
 - With each additional pen Jill buys, her willingness to pay for another pen decreases.
 - Each additional unit of ice cream that John consumes gives him more and more satisfaction.
 - If a seller of notebooks in a perfectly competitive market charges above the market price, his profit
- Refer to Figure 1.

Figure 1: Demand Curves



The total demand curve has the vertical intercept at _____ and the horizontal intercept at _____, and its slope _____.

- 15.00 euros; 7,000 liters; changes at 10.00 euros
 - 15.00 euros; 7,000 liters; changes at 8.12 euros
 - 18.00 euros; 7,000 liters; is twice as steep as Sue's demand curve
 - 10.00 euros; 7,000 liters; is half as steep as Carlos's demand curve
- A buyer has \$20 to spend on rice and beans. Rice costs \$2 and beans cost \$3 per pound. The buyer is buying the combination of 4 pounds of rice and 4 pounds of beans. At this combination, her marginal benefit from rice is \$14 and her marginal benefit from beans is \$18. This buyer should _____, and its slope _____.

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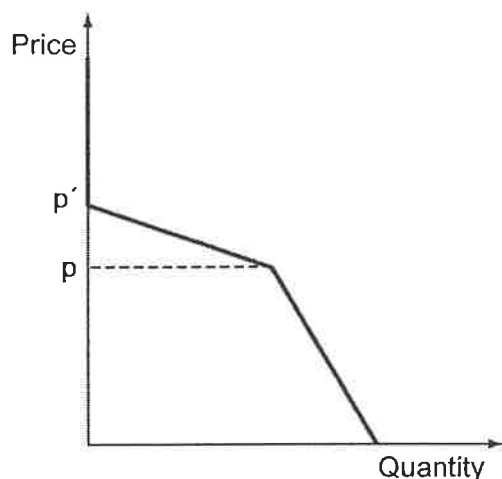
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- (a) buy less beans and more rice
 (b) buy more rice and less beans
 (c) buy more of both rice and beans
 (d) not change his consumption
4. The willingness to pay for a commodity _____.
- (a) decreases as consumption of the commodity increases
 (b) increases as consumption of the commodity increases
 (c) is always less than the market price of the commodity
 (d) is always greater than the market price of the commodity
5. There are two firms in an industry, Firm A and Firm B. Both firms sell a homogenous product. If one firm sets a price higher than the other firm, then all the demand goes to the firm setting the lower price. If prices are equal, the demand is shared equally between the two firms. Figure 2 depicts the demand faced by Firm A. What is Firm B's strategy that could explain such a demand curve faced by Firm A?

Figure 2: Demand Curve



- (a) Firm B sets its price to p .
 (b) Firm B sets its price to p' .
 (c) Firm B equates Firm A's price for any price between p and p' and never sets a price outside this interval.
 (d) Firm B sets its price to p' whenever the price of Firm A is greater than p , and sets a price equal to Firm A's whenever Firm A sets its price below p .

背面有題，請繼續作答。

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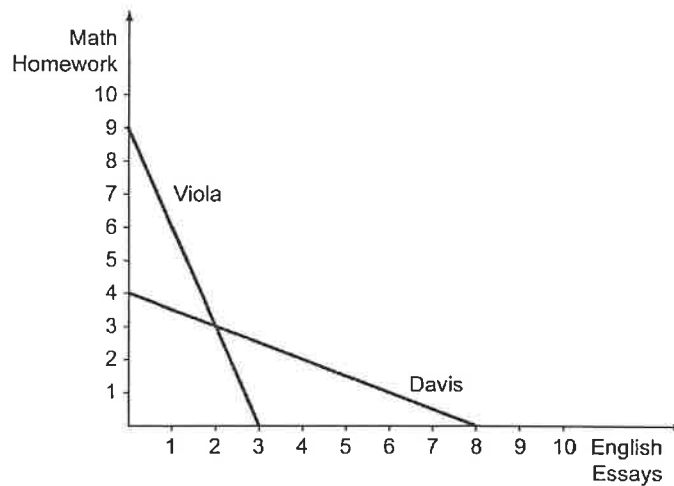
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6. The concept of the invisible hand suggests that _____.
- individuals working for self-interest will eventually maximize the well-being of society
 - equilibrium in a competitive market is determined independent of demand and supply
 - government intervention is necessary to rectify market imperfections
 - the price mechanism allocates resources only to the people with high income in the country
7. Viola and Davis are two students who are taking a math class and an English class. Figure 3 shows the production possibilities curves for each of them.

Figure 3: Production Possibilities Curves



Davis has a _____ opportunity cost of doing math homework assignments and a _____ opportunity cost of writing English essays compared to Viola.

- lower; higher
 - higher; higher
 - lower; lower
 - higher; lower
8. In a proportional tax system, _____.
- the average tax rate faced by an individual exceeds the marginal tax rate
 - the marginal tax rate faced by an individual exceeds the average tax rate
 - the average tax rate equals the marginal tax rate
 - the marginal tax rates faced by all households are equal

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9. Rita and Mike have been caught cheating on an examination. They are taken to separate rooms for interrogation. Their payoff matrix is given below. The first outcome listed in each cell is the payoff to the row player, and the second outcome listed is the payoff to the column player.

		Mike	
		Confess	Does Not Confess
Rita	Confess	10 points deducted, 10 points deducted	Let free, Suspended
	Does Not Confess	Suspended, Let free	5 points deducted, 5 points deducted

Which of the following is true?

- (a) Mike's best response is to hold out if Rita confesses.
 - (b) Rita's best response is to hold out if she expects Mike not to confess
 - (c) Rita's best response is not to confess irrespective of what Mike does.
 - (d) Mike's best response is to confess irrespective of what Rita does.
10. Which one of the following characteristics of a market would you expect to be inconsistent with price-taking behavior?
- (a) There are a large number of firms in the industry.
 - (b) Each firm's product is distinguishable from that of its competitors.
 - (c) Each firm's share of total industry output is insignificant.
 - (d) Each firm behaves as if it faces a perfectly elastic demand curve.
11. The three approaches to measuring GDP are called the
- (a) accounting approach, the income approach, and the expenditure approach.
 - (b) product approach, the cost approach, and the expenditure approach.
 - (c) product approach, the income approach, and the expenditure approach.
 - (d) accounting approach, the statistical approach, and the income approach.
12. If consumption and leisure are perfect complements for the consumer
- (a) an increase in the real wage causes the consumer to substitute consumption for leisure.
 - (b) an increase in the real wage causes the consumer to substitute leisure for consumption.
 - (c) an increase in dividend income has no effect on the ratio of consumption to leisure.
 - (d) the effect of an increase in dividend income depends on whether consumption is normal.

背面有題，請繼續作答。

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13. The unemployment rate is
- (a) countercyclical
 - (b) procyclical
 - (c) a leading variable
 - (d) smooth
14. The Golden Rule of capital accumulation maximizes the steady-state level of
- (a) output per worker.
 - (b) consumption per worker.
 - (c) capital per worker.
 - (d) investment per worker.
15. In the endogenous growth model, if more time is devoted to accumulating human capital,
- (a) this makes real income higher forever.
 - (b) real income is lower forever.
 - (c) the growth rate in output falls.
 - (d) the growth rate in output rises, but output falls in the short run.
16. Why is it important that consumers respond differently to temporary and permanent increases in their incomes?
- (a) This implies that consumption will be highly sensitive to temporary changes in income.
 - (b) This implies that a temporary tax cut will have a larger effect than a permanent one on current consumption.
 - (c) This tells us that the timing of income increases for consumers is irrelevant.
 - (d) This has implications for the relative effects of temporary and permanent tax cuts.
17. If a consumer borrows at an interest rate greater than the interest rate at which he or she can lend, then
- (a) banks cannot make a profit.
 - (b) the budget constraint has a kink at the endowment point.
 - (c) the consumer must be a lender.
 - (d) this makes no difference for consumer behavior.
18. Financial innovations may be expected to cause a decline in _____.
- (a) financial frictions
 - (b) the credit spread
 - (c) all of the above
 - (d) none of the above

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19. The notion that expectations will be identical to optimal forecasts using all available information is known as _____.
- (a) rational expectations
 - (b) adaptive expectations
 - (c) perfect expectations
 - (d) tertiary expectations
20. What is the relationship between fiscal multipliers and the “zero lower bound”?
- (a) Fiscal multipliers cannot fall below zero.
 - (b) When monetary policy has hit the zero lower bound, fiscal multipliers are likely to be larger than normal.
 - (c) At the zero lower bound, a fiscal contraction is actually expansionary.
 - (d) At the zero lower bound, fiscal policy works by shifting the aggregate supply curve, rather than shifting the aggregate demand curve.

背面有題，請繼續作答。

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II 問答題, 第一題 20 分, 第二題 20 分, 共 40 分。

Problem 1 (20%)

Suppose the market demand for laptop computer is $Q = 100 - P$ and market supply is $Q = -20 + P$. Furthermore, suppose that the marginal external damage associated with its production is $2Q$. Please answer the following questions.

1. In equilibrium, how many units of the laptop will be supplied without considering the externality?
2. Find the total external cost of the consumption of laptop in market equilibrium.
3. Find the deadweight loss associated with this externality.
4. To correct the externality, the government decides to impose a tax of T per unit sold. Find the tax rate T that achieves the social optimum.

Problem 2 (20%)

Consider a two-period model where a consumer has preferences over consumption in the two periods given by:

$$U(c_t, c_{t+1}) = \log c_t + \beta \log c_{t+1}$$

The consumer has no initial assets and has income y_t in the first period y_{t+1} in the second, pays lump-sum taxes T_t in the first and T_{t+1} in the second, and can borrow and lend at real interest rate r_t , thus giving the budget constraints at each period:

$$c_t + s_t = y_t - T_t$$

$$c_{t+1} = y_{t+1} - T_{t+1} + (1 + r_t)s_t$$

The government finances spending through taxes, T_t and borrowing, B_t^G :

$$G_t = T_t + B_t^G$$

$$G_{t+1} + (1 + r_t)B_t^G = T_{t+1}$$

where the government borrows at the same rate: r_t .

1. Combine the two budget constraints for the consumer into one.
2. Solve for the consumer's optimal consumption choices c_t^* and c_{t+1}^* .
3. Combine the two budget constraints for the government into one.
4. Now suppose that the government cuts taxes in the current period, so T_t falls by some amount $\Delta T > 0$, but government spending is unchanged. Thus future taxes must rise to pay back the principal and interest on the deficit this policy creates. How does this affect the consumer's optimal choices?