

考試科目	經濟學	系別	財政系	考試時間	7月3日(上)下午第2節 星期六
------	-----	----	-----	------	---------------------

一、Microeconomics: Multiple Choices [50%, 2% for each question]

本科目之選擇題請在答案卡上作答，否則不予計分。

- Suppose the demand curve for coffee in catering sector is $P = 10 - 3*Q$. Calculate the absolute value of the price elasticity of demand at the price \$4.
A) 6.0. B) 1.5. C) 1.0. D) 0.66. E) 0.16.
- Suppose the demand curve for coffee in home brewing sector is $P = 8 - 2*Q$. Calculate the absolute value of the income elasticity of demand at the price \$4.
A) 6.0. B) 1.5. C) 1.0. D) 0.66. E) can not be evaluated.
- To continue from questions 1. and 2., calculate the absolute value of the price elasticity of aggregate demand at the price \$8.5.
A) 28.3. B) 5.66. C) 1.0. D) 0.66. E) none of the above.
- To continue from questions 1., at price \$4, the supplier can increase revenues by
A) increasing price. B) decreasing price. C) cutting cost.
D) discounting products. E) none of the above.
- To continue from questions 1. and 2., at price \$4 catering sector is relatively than the home brewing sector.
A) larger. B) more price sensitive C) less elastic D) more diversified
E) none of the above.
- To continue from questions 1. and 2., suppose that the market is served by an monopoly with constant marginal cost \$2. It is currently practicing 3rd degree price discrimination. Then the absolute value of the price differential between these two separable markets is:
A) 6.0. B) 1.5. C) 1.0. D) 0.8. E) none of the above.
- To continue from question 6, the absolute value of the profit differential from practicing standard monopolistic pricing and 3rd price differentiation is:
A) 5.33. B) 4.5 C) 1.25 D) 0.2. E) none of the above.
- The price elasticity of demand of a linear, downward-sloping demand curve is
A) 1 B) downward-diminishing C) downward-increasing
D) a constant not equal to 1 E) none of the above.

備 考 試 題 隨 卷 繳 交

命 題 委 員 :

-28-

(簽章) 93 年 6 月 24 日

考試科目	經濟學、個體	系別	財政系	考試時間	7月3日(上)午第2節 星期六
<p>9. A per-unit sales tax has been levied on a product. Given the supply curve, the more price elastic the demand for the product,</p> <p>A) the more likely it is that the tax is borne equally by consumers and seller. B) the greater is the tax revenues C) the lower is the tax revenues D) the smaller the portion of the tax borne by consumers. E) the larger the portion of the tax borne by supplier.</p> <p>10. During economic expansion, when workers gain more new jobs and experience increasing pays, sales of durable goods (goods with a life expectancy of 3 years or more) grow. Apparently, durables are NOT</p> <p>A) ordinary goods. B) normal goods. C) Giffen goods. D) inferior goods. E) elastic.</p> <p>11. If, when the price of X increases, the demand for Y decreases one can conclude that</p> <p>A) X and Y are complements. B) X and Y are substitutes. C) X and Y are normal. D) X and Y are inferior. E) X and Y are ordinary.</p> <p>12. Assume both the demand and the supply of memory chips rise. Which of the following outcomes is certain to occur?</p> <p>A) The equilibrium price of memory chips will rise. B) The equilibrium quantity of memory chips will rise. C) The equilibrium price of memory chips will fall. D) The equilibrium quantity of memory chips will fall. E) Neither the equilibrium price nor the equilibrium quantity of memory chips can be predicted.</p> <p>13. A shortage occurs when</p> <p>A) demand is greater than supply. B) the equilibrium price is too high. C) quantity demanded exceeds quantity supplied. D) quantity supplied exceeds quantity demanded. E) price is above the equilibrium.</p> <p>14. You are thinking about going to the movies tonight. A ticket costs \$180 and you will have to cancel your tutoring class that pays \$300. The cost of seeing the movie is</p> <p>A) \$180 B) \$300. C) \$480. D) \$480 minus the benefit of seeing the movie. E) indeterminate.</p>					
備考	試題隨卷繳交				
命題委員：	-29- (簽章) 93年6月24日				

考試科目	經濟學(個體)	系別	財政系	考試時間	7月3日(上) 星期六 下午第2節
------	---------	----	-----	------	-------------------

15. For the two equally-priced-good case, optimal consumption for a Cobb-Douglas utility $u(x, y) = x^\alpha y^\beta$ function requires that
- A) total expenditures on the two goods be equal. B) total utility from the two good be equal. C) average utility from the two goods be equal. D) the ratio of marginal utility of the two goods to be equal for. E) the ratio of marginal utility of the two goods to be equal for the ratio of α/β .
16. Movies are \$200 a ticket, and videotape rentals are \$80 a tape per day. With movies on the vertical axis, the budget line has absolute slope equal to
A) 1 B) 2.5 C) 0.4 D) 80 E) 4
17. To continue from question 16, if a consumer has same level of enjoyment of watching a film either at the cinema with a movie ticket or at home with the rental video, then which of the following most likely would be optimal consumption pattern [___ movie ticket(s) and ___ rental video(s)] for the movie-video two-good case?
A) 2.5; 1 B) 1; 0 C) 0; 1 D) 1; 2.5 E) none of the above
18. To continue from question 16., if a consumer feels the enjoyment of watching a film only when she not only purchases the movie ticket to watch it on big screen but also goes home with the rental video to review it over and over again, then which of the following most likely would be optimal consumption pattern [___ movie ticket(s) and ___ rental video(s)] for the movie-video two-good case?
A) 2.5; 1 B) 1; 1 C) 0; 1 D) 1; 2.5 E) none of the above
19. When a perfect competitor sells additional units,
A) total revenues always rise. B) marginal revenues fall. C) total revenues always fall. D) total revenues remain unchanged. E) total revenues may rise or fall.
20. The demand curve to a perfectly competitive firm is _____ while the demand curve to a monopolist is _____.
A) perfectly elastic; downward sloping B) vertical; downward sloping
C) perfectly elastic; perfectly inelastic D) perfectly inelastic; perfectly elastic
E) perfectly elastic; elastic

備	考	試	題	隨	卷	繳	交
---	---	---	---	---	---	---	---

命題委員：

-30-

(簽章) 93年6月20日

考試科目	經濟學(個體)	系別	財政系	考試時間	7月3日(上)午第2節
------	---------	----	-----	------	-------------

國立政治大學圖書館

21. The (short-run) supply curve to a perfectly competitive firm is _____ while the supply curve to a monopolist is _____.
- A) downward sloping; perfectly elastic B) upward sloping; non-existent
 C) perfectly elastic; perfectly inelastic D) perfectly inelastic; perfectly elastic
 E) perfectly elastic; elastic
22. If a firm collects \$200 in revenues when it sells 4 units and \$300 when it sells 6 units, one can infer the firm is
- A) a perfect competitor. B) probably a monopolist. C) either a perfect competitor or a monopolist. D) a monopolist. E) an oligopolist.
23. A firm's shutdown point is the quantity and the price at which the firm's total revenue just equals its
- A) total cost. B) total variable cost. C) total fixed cost. D) marginal cost.
 E) total average cost
24. The primary objective of game theory is to
- A) determine the dominant strategy B) determine the recessive strategy
 C) predict what strategy each player will choose D) determine the game table
 E) predict the equilibrium outcomes.
25. If the marginal rate of transformation in Peaceland between guns and roses is 3 guns for one more rose, and a rose is worth 2 guns in the market right now. Then firms will
- A) produce more guns and roses B) be better off if they transfer production from roses to guns
 C) not wish to transfer production between guns and roses D) be better off if they transfer production from guns to roses
 E) produce fewer guns and roses.

備 考 試 題 隨 卷 繳 交

命題委員： -31- (簽章) 93年6月24日

考試科目	經濟學(總體)	系別	財政系	考試時間	7月3日 星期六 上午第二節
------	---------	----	-----	------	----------------

二、

1. (20 points) Because households in Taiwan appear to be worried about the deteriorating environment, they have begun to practice green consumption. Use a macroeconomic model of your own choice to demonstrate the impact of this change in household behavior on the following:

- real output
- price level
- employment
- nominal wage
- real wage
- expected real interest rate
- consumption
- net investment
- net exports
- exchange rate

Be sure to state all pertinent assumptions. Your analysis *must* be consistent with the assumptions you made in the model.

2. (10 points) An Endogenous Growth Model: Consider an economy whose production function is $Q = K^\theta (AL)^{1-\theta}$, with $A = 4(K/L)$. Assume that it has a savings rate of 0.2, a population growth rate of 0.1, an average depreciation rate of 0.1, and that $\theta = 0.5$. What is the growth rate of output? (Note: Show all your work and the formula you used to arrive at your answer.)

備 考 試 題 隨 卷 繳 交

命 題 委 員 :

-32-

(簽章) 93 年 6 月 21 日

考試科目	經濟學(總體)	系別	財政系	考試時間	7月3日 星期六 上午第二節
------	---------	----	-----	------	----------------------

國立政治大學圖書館

3. (10 points) 何謂綠色產出 (green output)? 詳細解析之。

4. (10 points) 將下列這段話翻譯成中文並闡釋之。 "But the best state for human nature is that in which, while no one is poor, on one desires to be richer, nor has any reason to fear being thrust back by the efforts of others to push themselves forward."



備 考 試 題 隨 卷 繳 交

命 題 委 員 :

-33-

(簽章) 93年 6 月 21 日

考試科目	初級會計學	系別	財政	考試時間	7月3日 星期五 下午第2節
------	-------	----	----	------	----------------

作答方式: 為維護您的權益, 請依下列規定作答。

一、選擇題請於答案卷第一頁依下列方式作答

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

二、問答題及計算題, 一律以橫式書寫方式作答, 並應清楚列示計算式

一、選擇題(45%), 每題 3 分

1. A company purchased goods on credit with credit terms of 3/15, n/45. Although the company does not have cash available to pay within the discount period, the manager of the company is considering borrowing money to take advantage of the discount. In order to make the appropriate decision, the manager computed the annual interest rate associated with the sales discount. This annual rate is approximately

- A) 56%. B) 38%. C) 25%. D) 18%. E) None of the above is correct.

2. Amg and Gen are competitors in the biotechnology market. In 2000, Amg reported a gross profit percentage of 87.2% while Gen's percentage was 71.5%. What is the most likely cause of Amg's higher gross profit percentage?

- A) Lower product selling prices for Amg.
 B) Lower product costs for Amg.
 C) Gen's inability to control selling and administrative expenses.
 D) Both B and C led to a higher gross profit percentage for Amg
 E) All of the above caused the higher percentage.

3. Net income for Timber in 2000 was \$121,998 (in thousands). There was a deduction from net income on the statement of cash flows for (\$24,419) (in thousands) for the change in accounts receivable. The accounts receivable balance on December 31, 2000 was \$105,727 (in thousands). How much was the accounts receivable balance on December 31, 1999?

- A) \$130,146 B) \$81,308
 C) \$97,579 D) None of the above

4. Under the FIFO cost flow assumption during a period of inflation, which of the following is false?

- A) Income tax expense will be higher than under LIFO.
 B) Gross margin will be higher than under LIFO.
 C) Ending inventory will be lower than under LIFO.
 D) Cost of goods sold will be lower than under LIFO.
 E) All of the above are true.

國立政治大學圖書館

備 考 試 題 隨 卷 繳 交

命 題 委 員 :

-34-

(簽章) 93年 6 月 18 日

考試科目	初級會計學	系別	財政	考試時間	7月3日(星期六)下午第二節
------	-------	----	----	------	----------------

5. The lower of cost or market (LCM) rule requires companies to reduce inventory values to replacement cost or net realizable value when these amounts are below actual costs during the year in which the decline in value can be estimated. Generally accepted accounting principles allow for this departure from the cost principle. Which of the following would apply LCM?

- A) Some high technology companies, such as IBM Computers, have experienced a declining cost of production and selling prices so LCM allows release of a holding loss during the period the value declined
- B) Companies that sell seasonal products, such as clothing, release the holding loss for the items whose retail value drops dramatically at the end of the season
- C) A company using LIFO costing wants to write off inventory to its lower replacement cost in order to be able to deduct the loss for this year's tax return.
- D) All of the above
- E) Only A and B

6. In 2000, ABC reported a current ratio of 3.96 and in 2001 it was 3.39. In examining their balance sheet for 2001, they disclosed current assets of \$2,209 million and current liabilities of \$652 million. In 2000, they had no short-term borrowings but they disclosed \$150 million in new short term borrowing for 2001. What would ABC's current ratio have been in 2001 if they had not borrowed those funds?

- A) 3.75
- B) 4.40
- C) 4.10
- D) It cannot be computed without knowing the amount of current liabilities for 2000.

7. DEF! Inc. had a current ratio of 4.15 in 2000 and 2.93 in 2001. Which of the following would cause the ratio to decrease?

- A) An increase in cash and equivalents and short-term investments.
- B) An increase in current assets that exceeded the increase in current liabilities.
- C) Current assets as a percentage of total assets increased while current liabilities as a percentage of total liabilities and stockholders' equity decreased.
- D) None of the above would cause the ratio to decrease.

8. How much would Amy have to deposit in the bank at the end of each of the next five years if she wishes to have \$5,000 in the bank at the end of that time period, assuming she will be earning 6% annual rate of return? (Round to the nearest dollar).

- A) \$ 887.
- B) \$ 943.
- C) \$1,000.
- D) \$1,187.
- E) \$5,000.

備 考 試 題 隨 卷 繳 交

命 題 委 員 :

-35-

(簽章) 93年 6月 18日

考試科目	初級會計學	系別	財政	考試時間	7月3日 星期六	下午第二節
------	-------	----	----	------	-------------	-------

國立政治大學圖書館

9. The following information is available for the GHI Company. They have 10.0 million common shares issued, .5 million shares held in treasury, par value of \$2 per share, and current market price of \$25 per share. They declare a 15% stock dividend. Which of the following is true?

- A) Retained earnings will decrease and contributed capital will increase by \$3 million.
- B) Retained earnings will decrease and contributed capital will increase by \$2.85 million.
- C) Retained earnings will decrease and contributed capital will increase by \$34.2 million.
- D) Retained earnings will decrease and contributed capital will increase by \$36.0 million.

10. In 2001, The XYZ Company reported the following items in their statement of cash flows. Equity in the income of investees \$300 million, net proceeds from the sale of investments \$235 million, and purchases of investments \$88 million. How much will be reported as cash inflow or outflow from investing activities?

- A) \$147 million in cash inflow.
- B) \$153 million in cash outflow.
- C) \$235 million in cash inflow.
- D) \$153 million in cash inflow.

11. On July 1, 2000, UVW Company borrowed \$10,000. The company signed a note payable with interest at 12 percent per year. The note and interest are due on December 31, 20A. On December 31, 2000, UVW paid \$10,600 to settle the debt in full. Transaction analysis of the \$10,600 cash payment on December 31, 2000, should reflect the following:

- A) decrease assets, \$10,600; decrease liabilities, \$10,600.
- B) decrease assets, \$10,000; decrease stockholders' equity, \$600; and decrease liabilities, \$10,600.
- C) decrease stockholders' equity, \$10,000; decrease liabilities, \$600; and decrease assets, \$10,600.
- D) decrease liabilities, \$10,000; decrease stockholders' equity, \$600; and decrease assets, \$10,600.
- E) None of the above is correct.

12. OPQ Company purchased a machine that cost \$28,000 and had an estimated useful life of 7 years (no residual value) on January 1, 2000. The book value at the end of 2001, would be

- A) \$28,000.
- B) \$24,000.
- C) \$20,000.
- D) \$16,000.
- E) None of the above is correct.

13. Which of the following statements is true?

- A) When the equity method is used to account for an investment in an investee, the reported share of investee income must be added to net income on the statement of cash flows.
- B) When the equity method is used to account for an investment in an investee, the cash dividends received are cash inflow from investing activities.
- C) Any realized or unrealized gains or losses that were reported on the income statement under the market value method, must be removed from net income in the operating activities section of the statement of cash flows.
- D) All of the above are true.
- E) Both B and C are true.

備	考	試	題	隨	卷	繳	交
---	---	---	---	---	---	---	---

命題委員：

-36-

(簽章) 93年 6月18日

考試科目	初級會計學	系別	財政	考試時間	7月3日 星期六 下午第二節
------	-------	----	----	------	----------------

國立政治大學圖書館

14. RST Corporation issued (sold) \$50,000,000 of its 10% bonds at par on January 1, 2003. On December 31, 2003 the bonds were trading on the bond exchange at 102. Since the issue date, the market rate of interest on similar risk bonds has

- A) Increased.
- B) Decreased.
- C) Stayed the same.
- D) None of the above is correct.

15. In 2000, Rudy Tuesday had a dividend yield of .2% and Wendy's was .9%. Which of the following is false?

- A) Most likely these companies suffered a decline in their market price causing the yield to drop.
- B) They pay very little in dividends because they reinvest their earnings in expansion of operations.
- C) They provide very little immediate return to their investors.
- D) All of the above are false.
- E) None of the above is false.

二、問答題及計算題(55%)

1.(10%) Landings Inc. provided the following footnote in their annual report:

Inventories are stated at the lower of cost or market. The cost of inventories has been determined using last in first out (LIFO) method. Cost of goods sold under LIFO costing were \$22.2 billion for 20B and ending inventory under LIFO was \$1.3 billion. Inventory in 20A under LIFO costing was \$1.2 billion. The LIFO Reserve account carried a credit balance of \$0.8 billion in 2003 and \$0.6 billion in 2002.

Compute the following for Landings:

- 1. FIFO ending inventory balance at year end 2002: _____
- 2. FIFO ending inventory balance at year end 2003: _____
- 3. FIFO cost of goods sold for year end 2003: _____
- 4. Inventory turnover under LIFO costing for 2003: _____
- 5. Inventory turnover under FIFO costing for 2003: _____

2. (14%) Identify the effects on cash flow from financing activities of the following activities as increasing (+), decreasing (-) or having no effect (NE) on financing cash flows:

	Effect
1. Issuance of a seasoned new issuance	
2. Cash dividend	
3. Repurchase of treasury shares	
4. Stock split	
5. Exercise of stock options	
6. Re-issuance of treasury shares	
7. Stock dividend	

備 考 試 題 隨 卷 繳 交

考試科目	初級會計學	系別	財政	考試時間	7月3日 星期六 下午第二節
------	-------	----	----	------	----------------

國立政治大學圖書館

3. (16%) On January 1, 2001, Fred Corporation purchased 7,500 shares of STech, Inc. as a long-term investment for a total of \$235,000. The 7,500 shares represent 30% of the outstanding (25,000) shares of STech. Prepare the journal entries for Fred to record the following transactions and events:

- December 31, 2001: STech reported net income of \$66,000 for 2001.
- February 1, 2002: Sold 1,875 of the STech shares for \$34 per share. In addition, \$1,350 in fees and commissions were paid by Fred on this sale.
- November 1, 2002: Fred received a \$0.90 per share cash dividend from STech.
- December 31, 2002: STech reported net income of \$146,000 for 2002.

4. (15%) The following information is from Esprit Corporation's balance sheets as of December 31, 2001, and 2002 and its income statement for 2002:

<i>Esprit Corporation</i> <i>Income Statement</i> <i>For the year ended December 31, 2002</i>			<i>Esprit Corporation</i> <i>Balance Sheet</i> <i>31-Dec-02</i>		
				2002	2001
Sales	\$ 305,000		Assets		
Cost of goods sold	<u>123,000</u>		Cash	\$18,000	\$22,000
Gross profit	\$428,000		Marketable securities	\$25,000	\$0
Operating expense			Accounts receivables	38,000	42,000
Depreciation expense	\$3,000		Merchandise inventory	61,000	52,000
Other expense	<u>12,600</u>	(15,600)	Prepaid expense	6,000	9,000
Income before taxes	\$412,400		Long-term investments	49,000	20,000
Income taxes	<u>(123,720)</u>		Equipment	400,000	400,000
Net income	<u>\$288,680</u>		Accum. depreciation-Equipment	<u>(182,000)</u>	<u>(175,000)</u>
			Total Asset	\$415,000	\$370,000
			Liabilities and Equity		
			Accounts payable	\$83,000	\$71,000
			Short-term note payable	20,000	18,000
			Long-term note payable	95,000	85,000
			Common Stock, \$2 par value	125,000	100,000
			Contributed capital in excess of par value, C S	50,000	40,000
			Retained earnings	<u>42,000</u>	<u>56,000</u>
			Total Liabilities and Equity	\$415,000	\$370,000

From the above information, calculate the following ratios for 2002:

- (a) Inventory turnover.
- (b) Accounts receivable turnover.
- (c) Return on total assets.
- (d) Times interest earned.
- (e) Current ratio.

備 考 試 題 隨 卷 繳 交

考試科目	微積分	系別	財政系	考試時間	7月3日 上午 第二節 星期六
------	-----	----	-----	------	--------------------

國立政治大學圖書館

1. Find the limit (if it exists).

$$\lim_{x \rightarrow -6^-} f(x), \text{ where } f(x) = \begin{cases} 4-x, & x < 1 \\ 4x-x^2, & x > 1 \end{cases} \quad (10 \text{ points})$$

2. Take the derivative of $f(x) = \ln \frac{\sqrt{x^2+1}}{x(2x^3-1)^2}$. (15 points)

3. Find the relative extrema and saddle points of the function.

$$f(x, y) = 2e^{-(x+4)^7 - (y-1)^7} \quad (15 \text{ points})$$

4. Evaluate $\int_{-1}^1 \frac{e^{\sqrt[4]{x^2-4}}}{x^2-4} dx$ (15 points)

5. Evaluate $\iint_R \frac{x}{\sqrt{1+y^2}} dA$ where R is the region in the first quadrant bounded by $y = x^2$, $y = 4$, and $x = 0$. (15 points)

6. Use Newton's Method to approximate a zero of the function $f(x) = e^{3x} + 3x$. Start with $x = 1$ and continue until two successive approximations differ by less than 0.001. (15 points)

7. Solve the equation $\frac{dy}{dt} = ky \ln \frac{200}{y}$, with initial conditions $y(0) = 20$ and $y(3) = 40$. Please show both general solution and particular solution. (15 points)

備考	試題隨卷繳交
----	--------