

考 試 科 目	經濟學	系 別	財政學系	考 試 時 間	7 月 9 日 星期五	第 2 節
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一、 單一選擇 (20 題，每題 2 分，計 40 分)

- The opportunity cost of Choice A can be defined as
 (A) the price paid to get A. (B) the highest-priced alternative to Choice A.
 (C) the cheapest alternative to Choice A. (D) the highest-valued alternative forgone.
- If a given production combination is efficient, then it must be
 (A) the lowest amounts of productions out of all possible combinations.
 (B) possible to increase production of on good without decreasing the production of the other.
 (C) on the production possibilities frontier.
 (D) either an attainable or unattainable production combination.
- Which of the following influences one's buying plans and does *not* shift the demand curve?
 (A) the price of the good. (B) the price of substitution goods.
 (C) preference. (D) income.
- The demand for gasoline has been found to be inelastic. The most likely explanation for this phenomenon is
 (A) gasoline is a monopoly market. (B) the fraction of income spent on gasoline is small.
 (C) few substitutes exist for gasoline. (D) air pollution regulation has made gasoline expensive.
- An consumption indifference curve shows
 (A) the opportunity cost of one good relative to another.
 (B) different combinations of two goods among which the consumer is indifferent.
 (C) attainable production combinations of goods.
 (D) the consumer has the same marginal rate of substitution.
- The long run price elastic of supply for good is greater than the short run good supply elasticity because
 (A) firms have much more time to find additional factors of production in the long run.
 (B) firms gave no choice in the long run.
 (C) firms react solely in the long run.
 (D) consumers react slowly to price change.
- In perfect competition market, a firm's shutdown point is the quantity and price at which the firm's total revenue just equals its
 (A) total fixed cost. (B) total variable cost. (C) total cost. (D) marginal cost.
- Decreasing returns to scale occur when a doubling of all inputs
 (A) doubles the revenue of outputs. (B) exactly doubles output.
 (C) less than doubles output. (C) doubles the price of outputs.
- If a bank offers a loan regardless of borrower's income, occupation, or credit history, it is likely to suffer
 (A) lower costs. (B) shrink market shares. (C) lower interest rates. (D) adverse selection problems.
- Which of the following is the best example of a good that is nonrival and excludable in consumption?

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- (A) cable television. (B) radio broadcast. (C) national defense. (D) a can of beer.
11. GDP equals net domestic products plus
(A) retained earnings. (B) depreciation. (C) government transfer payments. (D) indirect business taxes.
12. The unemployment rate is calculated as 100 times
(A) [unemployment ÷ population]. (B) [unemployment ÷ employment].
(C) [employment ÷ unemployment]. (D) [unemployment ÷ labor force].
13. According to "the rule of 70", if real GDP grows at an annual rate of 3.5%, it will double in approximately how many years?
(A) 2.45 (B) 20 (C) 30 (D) 70
14. Suppose the nominal interest rate is equal to 1% and the inflation rate is expected to be -2%. In this case, real interest rate is approximate to:
(A) -2% (B) -0.5% (C) 1% (D) 3%
15. Which of the following will cause an increase in unplanned inventory investment?
(A) central bank lower the interest rates. (B) an increase in the economic growth rate.
(C) an unexpected decrease in consumer spending. (D) bull market in the stock market.
16. A demand-pull inflation requires persistent increases in
(A) real wages. (B) income tax rate. (C) interest rates. (D) the quantity of money.
17. The only government policy that has a direct effect on the aggregate demand curve is:
(A) changing the level of government purchases of final goods.
(B) changing the level of government transfer payments.
(C) changing the tax rate. (D) changing the quantity of discount loan.
18. According to the Laffer curve, raising the tax rate
(A) always decreases the amount of tax revenue.
(B) always increases the amount of tax revenue.
(C) might increase, decrease, or not change the amount of tax revenue.
(D) does not change the amount of tax revenue.
19. The demand curve for money will not shift as a result of a change in:
(A) increase in the interest rate. (B) advance in information technology.
(C) increase in real GDP. (D) increase in the price level.
20. In the classical model, an increase in the money supply leads, other things equal:
(A) to an equal proportional fall in the aggregate output, with no effect on aggregate price level.
(B) to an equal proportional rise in the aggregate price level, with no effect on aggregate output.
(C) to an equal proportional fall in the aggregate price level, with no effect on aggregate output.
(D) to an equal proportional rise in the aggregate output, with no effect on the aggregate price level.

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二、問答與計算題（計算題須列出詳細計算過程，計 60 分）

- Bill and Jack are the only demanders of good X. If Bill's demand function is $P_B = 60 - 0.5Q$ and Jack's demand function is $P_J = 100 - 2Q$.
 - If good X is a private good, draw the market demand curve for good X. (3%)
 - If good X is a private good, write down the market demand function for good X. (3%)
 - If good X is a public good, draw the market demand curve for good X. (3%)
 - If good X is a public good, write down the market demand function for good X. (3%)
 - If good X is a public good the marginal cost of good X is \$ 20, what is the socially optimal quantity of good X? (3%)
- 試分別說明重貼現率、存款準備率與公開市場操作三項貨幣政策工具的主要特徵？(5%)
 - 前三項貨幣政策工具如何影響貨幣供給？(5%)
 - 試以結構式 (structural form) 說明寬鬆的貨幣政策對實質產出水準影響的傳遞機制。(5%)
- 何謂準貨幣 (quasi-money)？(5%)
 - 何謂準備貨幣 (reserve money)？(5%)
 - 何謂外匯準備 (foreign exchange reserve)？(5%)
- 房價高漲，房東紛紛調漲房租，若政府為了照顧租屋族，訂定「最高房租管制辦法」，試說明可能產生的經濟效果。(7%)
- 一獨占廠商有兩個廠房，其產品可分別在兩個廠房生產。第一個廠房的邊際成本為 $MC_1 = 30 + 3Q_1$ ，第二個廠房的邊際成本為 $MC_2 = 6 + 2Q_2$ 。產品之需求函數為 $P = 30 - 2(Q_1 + Q_2)$ 。問此追求利潤最大的廠商，其產品的售價多少？各廠房的產量又是多少？(8%)

備	考 試 題 隨 卷 繳 交
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考試科目	初級會計學	系別	財政系	考試時間	7月9日 星期五	第 4 節
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第一題 (35%)

Newman Corporation's comparative balance sheets are presented below.

NEWMAN CORPORATION
Comparative Balance Sheets
December 31

	<u>2010</u>	<u>2009</u>
Cash	\$ 10,200	\$ 17,700
Accounts receivable	25,200	22,300
Investments	25,000	16,000
Equipment	60,000	70,000
Accumulated depreciation	(14,000)	(10,000)
Total	<u>\$106,400</u>	<u>\$116,000</u>
Accounts payable	\$ 14,600	\$ 11,100
Bonds payable	10,000	30,000
Common stock	50,000	45,000
Retained earnings	31,800	29,900
Total	<u>\$106,400</u>	<u>\$116,000</u>

Additional information:

1. Net income was \$15,300. Dividends declared and paid were \$13,400.
2. Equipment which cost \$10,000 and had accumulated depreciation of \$2,200 was sold for \$3,800.
3. All other changes in noncurrent account balances had a direct effect on cash flows, except the change in accumulated depreciation.

Instructions

- (a) Prepare a statement of cash flows for 2010 using the indirect method. (32%)
- (b) Compute free cash flow. (3%)

備 考 試 題 隨 卷 繳 交

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第二題 (15%)

On June 30, 2010, Wayne, Inc. sold \$3,000,000 (face value) of bonds. The bonds are dated June 30, 2010, pay interest semiannually on December 31 and June 30, and will mature on June 30, 2013. The following schedule was prepared by the accountant for 2010.

Semi-Annual Interest Period	Interest to be Paid	Interest Expense	Amortization	Unamortized Amount	Bond Carrying Value
				\$75,000	\$2,925,000
1	\$120,000	\$131,625	\$11,625	63,375	1,936,625

Instructions

On the basis of the above information, answer the following questions. (Round your answer to the nearest dollar or percent.)

1. What is the stated interest rate for this bond issue? (3%)
2. What is the market interest rate for this bond issue? (3%)
3. What was the selling price of the bonds as a percentage of the face value? (3%)
4. Prepare the journal entry to record the sale of the bond issue on June 30, 2010. (3%)
5. Prepare the journal entry to record the payment of interest and amortization on December 31, 2010. (3%)

第三題 (25%)

Presented below are selected transactions for Corbin Company for year 2010.

- Jan. 1 Received \$9,000 scrap value on retirement of machinery that was purchased on January 1, 2000. The machine cost \$90,000 on that date, and had a useful life of 10 years with no salvage value.
- April 30 Sold a machine for \$28,000 that was purchased on January 1, 2007. The machine cost \$75,000, and had a useful life of 5 years with no salvage value.
- Dec. 31 Discarded a business automobile that was purchased on April 1, 2006. The car cost \$32,000 and was depreciated on a 5-year useful life with a salvage value of \$2,000.

Instructions

Journalize all entries required as a result of the above transactions. Corbin Company uses the straight-line method of depreciation and has recorded depreciation through December 31, 2009.

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考 試 科 目	初級會計學	系 別	財政系	考 試 時 間	7 月 9 日 星期五	第 4 節
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第四題 (25%)

Presented below is information for Pryor Company for the month of March 2010.

Cost of goods sold	\$232,000	Rent expense	\$ 30,000
Freight-out	7,000	Sales discounts	8,000
Insurance expense	12,000	Sales returns and allowances	13,000
Salary expense	63,000	Sales	410,000

Instructions

- (a) Prepare a multiple -step income statement. (22%)
 (b) Compute the gross profit rate. (3%)



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考試科目	微積分	系別	財政學系	考試時間	7月9日 星期五	第四節
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演算題：(共 100%)

- (10%) Find the total derivative $\frac{dz}{dy}$ for $z = 3x^2 - 3xy + 2y^2$, where $x = \frac{1}{y}$
- (10%) Find the derivative of $\frac{dy}{dx}$ from $y = \frac{x^2}{(x+3)(2x-1)}$
- (10%) Find the derivative of $\frac{dy}{dx}$ from $y = (1-x)^x$
- (20%) Let $T = \phi(x)$ be a total (product or cost) function:
 - Write out the marginal function $M(x)$ and the average function $A(x)$.
 - Show that, when $A(x)$ reaches a relative extremum, $M(x)$ and $A(x)$ must have the same value.
- (10%) $y = \ln(e^{3x} \sqrt{e^{3x} - 1})$, find dy/dx .
- (10%) Evaluate $\int 3x^2 e^{-3x} dx$.
- (10%) Find the Taylor Polynomial of degree n centered at $x = 0$ for $f(x) = \frac{1}{1-x}$.
- (20%) A wine dealer has one bottle of premium wine in possession. The growing value (V) of the wine is known to be the following function of time, $V = Ke^{rt}$, the continuous-compounding interest rate is r :
 - What is the value of selling the wine today ($t = 0$)?
 - What is the present value of selling the wine at time t ?
 - If storage of the wine costs a stream $\$s$ per year, what is the total present value of the storage cost in a total of t years?
 - If the wine dealer purchases the wine by spending $\$C$ today, express the net (of purchasing cost and storage cost) present value of selling the wine at time t ?

備 考 試 題 隨 卷 繳 交

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