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I. Multiple Choice (1 points each)

Identify the letter of the choice that best completes the statement or answers the question.

- Holding all other forces constant, when the price of gasoline rises, the number of gallons of gasoline demanded would fall substantially over a ten-year period because
 - buyers tend to be much less sensitive to a change in price when given more time to react.
 - buyers tend to be much more sensitive to a change in price when given more time to react.
 - buyers will have substantially more real income over a ten-year period.
 - the quantity supplied of gasoline increases very little in response to an increase in the price of gasoline.
- Suppose that Mike is filling out a survey. The survey asks him what he would do if the price of his favorite shaving gel increased. Mike reports that he would switch to a different brand. The survey then asks what he would do if the price of all shaving gels increased. Mike reports that he must use shaving gel, so he would have to adjust his spending elsewhere. These examples illustrate the importance of
 - changes in total revenue in determining the price elasticity of demand.
 - the definition of a market in determining the price elasticity of demand.
 - a necessity versus a luxury in determining the price elasticity of demand.
 - the time horizon in determining the price elasticity of demand.
- Suppose that Elmer's hourly wage increases, and he decides to work fewer hours. For Elmer, the substitution effect of the wage change is
 - greater than the income effect.
 - equal to the income effect.
 - smaller than the income effect.
 - We do not have enough information with which to answer the question.
- In the work-leisure trade-off analysis, if tax reductions induce a consumer to work more, an explanation for this occurrence is that
 - leisure is an inferior good.
 - leisure is a Giffen good.
 - the substitution effect dominates the income effect.
 - the income effect dominates the substitution effect.

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- 作答於試題上者，不予計分。
- 試題請隨卷繳交。

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5. Which of the following production functions exhibits constant returns to scale?

- A. $Q = K \cdot L$.
- B. $Q = K^{0.4} \cdot L^{0.4}$.
- C. $Q = K + L - 2$.
- D. $Q = 2K + 3L$.

6. Consider a market demand function $Q = e^{3600 + \ln \frac{1}{(p+8)^3}}$. There is a monopolist in the market with no fixed cost, and its marginal cost is \$8 at all levels of output. What price will it charge to maximize its profits?

- A. 20
- B. 12
- C. 10
- D. 16

7. Josh sells mojos as a monopolist in a market with two consumers, Lyle and Yu-Min. Lyle's demand function for mojos is $Q_L = 20 - P_L$. Yu-Min's demand function is $Q_Y = 10 - P_Y$. Josh only knows there are two consumers but does not know who has a higher demand. Therefore, he decides to offer two options $O_1 = (q_1, m_1)$ and $O_2 = (q_2, m_2)$. If a consumer chooses O_i , he pays m_i dollars to buy q_i mojos. Consumers can only choose one offer, and resale is not allowed. If Josh wants to practice 2nd-degree price discrimination, which of the following offers should he use?

- A. $O_1 = (20, 200)$ and $O_2 = (10, 50)$
- B. $O_1 = (20, 125)$ and $O_2 = (8, 48)$
- C. $O_1 = (20, 140)$ and $O_2 = (6, 42)$
- D. $O_1 = (20, 165)$ and $O_2 = (4, 32)$

8. In the game matrix below, the first payoff in each pair goes to player A who chooses the row, and the second payoff goes to player B, who chooses the column. Let a, b, c and d be positive constants.

Player B

		Left	Right
Player A	Top	$a, 1$	$b, 0.5$
	Bottom	$1, c$	$2, d$

If the game only has a mixed-strategy Nash equilibrium, then we can conclude that

- A. $b > a$ and $d > c$.
- B. $a > 1$ and $d < 0.5$.
- C. $a < 1$ and $b > 2$.
- D. None of the above is correct.

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9. Concerts in Taipei Dome cause noise and earthquake-like vibrations for surrounding residents. According to an estimation, there are 1,000 residents affected, and the average mental damage per concert for each resident is $D_R = 5 + Q$, where Q stands for the number of concerts per month. On the other hand, the monthly concert revenue of Taipei Dome is $R_T = 10,000Q - 1,000Q^2$. The marginal cost of holding each concert is 1,000. What is the socially optimal number of concerts?

- A. 1
- B. 3
- C. 5
- D. 7

10. Which of the following is not a characteristic of a public good?

- A. It is not excludable.
- B. It is not diminished or depreciated as additional people consume the good.
- C. Its benefits cannot be withheld from anyone.
- D. Because it is a free good, there is no opportunity cost.

11. Which of the following events would decrease the unemployment rate?

- A. A decrease in the labor force combined with an increase in the total population.
- B. A decrease in the labor force, with no change in the number of employed workers.
- C. A decrease in the number of employed workers, with no change in the labor force.
- D. An increase in the labor force, with no change in the number of employed workers.

12. Which of the following policies is considered quantitative easing?

- A. The central bank prints money and directly transfers it to financial institutions.
- B. The central bank purchases short-term government bonds.
- C. The central bank sells short-term government bonds.
- D. The central bank purchases long-term government bonds.

13. In the long run, what is the primary cause of inflation?

- A. Increase in the minimum wage.
- B. Government's currency manipulation.
- C. Growth in the money supply.
- D. Protective trade policies and high tariff rates.

14. All else being equal, which of the following outcomes would we expect from a decrease in Taiwan's interest rates?

- A. Citizens decide to hold more foreign bonds.

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- B. Citizens choose to hold more currency.
 C. Domestic business owners decide to invest in new equipment for their factory.
 D. All of the above are correct.

15. If inflation expectations rise, the short-run Phillips curve shifts:

- A. to the right, so that at any inflation rate, unemployment is higher in the short run than before.
 B. to the left, so that at any inflation rate, unemployment is higher in the short run than before.
 C. to the right, so that at any inflation rate, unemployment is lower in the short run than before.
 D. to the left, so that at any inflation rate, unemployment is lower in the short run than before.

16. In a world described by the classical dichotomy, assuming GDP and the price level are given, if President Trump raises U.S. import tariffs while all other factors remain unchanged, how will this policy affect Taiwan's loanable funds market?

- A. The real interest rate will increase.
 B. The real interest rate will decrease.
 C. The real interest rate will stay the same.
 D. It will shift both the demand and supply of loanable funds simultaneously.

17. Consider a partial equilibrium model for good *A* in Taiwan. If President Trump raises U.S. import tariffs on that good, thereby reducing Taiwan's export prices, and assuming Taiwan is a small country and the U.S. is a large country in the market for good *A*, how will this affect Taiwan's consumer surplus?

- A. It will increase.
 B. It will decrease.
 C. It will stay the same.
 D. The change will be ambiguous.

18. If President Trump raises U.S. import tariffs, assuming all other factors remain unchanged, how will this policy affect Taiwan's economy according to the classical Keynesian model?

- A. The output will decrease but the price level will increase.
 B. Both the output and price level will decrease.
 C. The output will decrease but the price level will stay the same.
 D. The output will increase but the price level will stay the same.

19. If President Trump raises U.S. import tariffs and leads to workers in the associated industries in Taiwan losing their jobs and other things being equal, how will this affect the natural rate of unemployment in Taiwan?

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- A. It will increase.
- B. It will decrease.
- C. It will stay the same.
- D. It depends on how the cyclical unemployment rate changes.

20. In the long run, assuming GDP and price level are given, if investors in Taiwan fear that President Trump will raise the U.S. import tariff in the near future and other things equal, how will this affect Taiwan's economics?

- A. An increase in net export of Taiwan and a rise in the real interest rate
- B. A drop in net export of Taiwan and a rise in the real interest rate
- C. An increase in net export of Taiwan and a drop in the real interest rate
- D. A drop in net export of Taiwan and a drop in the real interest rate

II. Problems and Short-essay Questions

1. A competitive market currently has 120 firms, all of which has a total cost function of $TC(q) = 9 + 11q + q^2$, where q denotes the quantity produced by each firm.

a. (10 points) Currently, the market price $p = 19$. What is the total quantity supplied in the market? How much profit does each firm make in the short-run equilibrium?

b. (5 points) What is the long-run equilibrium price? Suppose the market demand is given by $p = 35 - \frac{1}{30}Q$, where Q denotes the market quantity demanded. How many firms are there in the long-run equilibrium?

c. (5 points) Suppose now the government levies a \$2 specific tax on each unit of the output produced. How many firms are there in the long-run equilibrium?

2. An industry has two firms, A and B , producing output at constant unit costs of 1 and $C > 1$ per unit, respectively. The demand function for the industry is

$$Q = \frac{V}{P}$$

with $V > C$.

a. (10 points) Suppose two firms are Cournot competitors. Find the equilibrium price, quantities produced, and profits for two firms.

b. (10 points) Suppose two firms are Bertrand competitors. Moreover, when both firms set identical prices, all consumers purchase from the more cost-efficient firm. Find the equilibrium price, quantities produced, and profits for two firms.

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3. Consider consumers in Country *A* and Country *B*, who each consumes 2 units of bananas and 5 units of pizza every year. The currency unit of Country *A* is AD, and the currency unit of Country *B* is BD. Please answer the following questions in detail:

a. (10 points) Assume that in year 2000, the prices of bananas and pizza in Country *A* were 3 AD and 5 AD, respectively, and the prices of these items in Country *B* were 2 BD and 2 BD. Suppose the purchasing power parity holds between the two countries. What was the nominal exchange rate of AD in terms of BD in year 2000?

b. (5 points) Does the law of one price hold according to the information in (a)? Why or why not?

c. (5 points) In 2001, the price of bananas and pizza in Country *A* became 2 AD and 6 AD, respectively. Please calculate the CPI index of Country *A* in 2001, using 2000 as the base year.

4. In this question, we will examine the monetary and fiscal policies of Country *Z*. The economy of Country *Z* is described by the following equations:

$$Y = C + I + G$$

$$C = 100 + 0.5(Y - T)$$

$$I = 300 - 50r$$

where *Y* is GDP, *C* is consumption, *I* is investment, *G* is government spending, *T* is taxes, and *r* is the real interest rate (for example, if the real interest rate is *q*%, then $r = q$).

Country *Z* has recently experienced a significant negative economic shock. The president plans to implement policies aimed at stimulating the economy. At first, the president considers an expansionary fiscal policy and the corresponding multiplier effect.

a. (2 points) What is the marginal propensity to consume (MPC) in this economy?

b. (3 points) Calculate the fiscal multiplier.

c. (5 points) Suppose Country *Z* receives foreign aid, which enables an increase in government spending without raising taxes. Given a change in government spending ($\Delta G = 50$) and no change in taxes ($\Delta T = 0$), what is the resulting increase in aggregate demand?

In Country *Z*, the nominal interest rate is fixed at 8%. The current growth rate of the money supply is 7%, and the current inflation rate is 5%. To stimulate investment, the central bank increases the growth rate of the money supply to 9%.

d. (2 points) What is the inflation rate after the central bank's monetary policy?

e. (3 points) Referring to the Fisher effect (Fisher equation), calculate the new real interest rate after the monetary policy.

f. (5 points) Given the change in the real interest rate, calculate the change in investment (ΔI). What is the resulting increase in aggregate demand?

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Part I. Multiple Choice Questions (40 points, 5 points each)

- You are considering moving to a new house and can either rent or purchase it with a 30-year loan. The house you wish to buy costs \$600,000. If you purchase the house, you will make annual payments over 30 years at an APR of 2.5%. At the end of 30 years, you estimate the house will be worth \$120,000. What is the present value of the cost of purchasing the house?

(A) \$652,209.12
 (B) \$600,000
 (C) \$542,790.88
 (D) \$464,640.24
- Following the previous question, a real estate agent offers a special rental arrangement where you pay \$15,600 upfront today and \$2,200 per month for the next 30 years. What is the present value of the rental cost? Should you buy or rent the house?

(A) \$572,391.61; buy the house
 (B) \$572,391.61; rent the house
 (C) \$652,209.12; buy the house
 (D) \$652,209.12; rent the house
 (E) None of the above
- Tycoon Tours is expected to have an EBIT of \$184,000 next year. Depreciation, the increase in net working capital, and capital spending are expected to be \$11,000, \$1,500, and \$13,000, respectively. All are expected to grow at 6% per year for three years. After Year 4, the adjusted cash flow from assets is expected to grow at 2.5% indefinitely. The company's WACC is 9.2% and the tax rate is 21%. What is the terminal value of the company's cash flows?

(A) \$1,711,052
 (B) \$2,008,051
 (C) \$2,123,008
 (D) \$2,584,798
 (E) \$2,740,563
- Which of the following are plausible reasons for firms paying dividends?

I. there is a clientele that prefers dividends
 II. dividends provide a strong signal of future earnings
 III. Firms pay dividends to distribute excess cash
 IV. firms that pay dividends are more valued by investors

(A) I only
 (B) I and II only
 (C) I, II, and III only

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<p>(D) II, III, and IV only (E) All of the above</p> <p>5. We have two assets with beta coefficients of 1.3 and 0.8 from the market model. The residual standard deviation from the market model is for two assets are 2 and 6, respectively. The market standard deviation is 4.5.</p> <p>I. The correlation between two assets is 0.56. II. The first asset has a higher systematic risk III. The second asset has a higher total risk IV. The correlation is too high to have any portfolio with these two assets that can have a lower total risk than both assets.</p> <p>(A) Only II and III are correct (B) Only I, II, and III are correct (C) Only I and IV are correct (D) All of them are correct</p> <p>6. Which one of the following statements related to the internal rate of return (IRR) is correct?</p> <p>(A) The IRR yields the same accept and reject decisions as the net present value method given mutually exclusive projects. (B) A project with an IRR equal to the required return would reduce the value of a firm if accepted. (C) The IRR is equal to the required return when the net present value is equal to zero. (D) Financing type projects should be accepted if the IRR exceeds the required return. (E) The average accounting return is a better method of analysis than the IRR from a financial point of view.</p> <p>7. The yield to maturity on a bond is the interest rate you earn on your investment if interest rates do not change. If you sell the bond before it matures, your realized return is known as the holding period yield. Suppose that today you buy a par value bond with 9% annual interest for \$1,000. The bond has 12 years to maturity. Three years from now, the yield to maturity has declined to 7% and you decide to sell. What is your holding period yield?</p> <p>(A) 8.84% (B) 10.96% (C) 12.83% (D) 13.01%</p> <p>8. Efficient financial markets fluctuate continuously because:</p> <p>(A) arbitrage trading is limited. (B) the markets are continually reacting to old information as that information is absorbed. (C) investments produce varying levels of net present values. (D) current trading systems require human intervention. (E) the markets are continually reacting to new information.</p>					

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Part II. Calculations and Essays (60 points)

1. Dah Hsian Inc is determined to report earnings per share of \$3.00. It therefore acquires The Queenstown Inc:

	Dah Hsian Inc	The Queenstown Inc	Merged Firm
Earnings per share	\$2.50	\$3.00	\$3.00
Price per share	\$50.00	\$30.00	?
Price-earnings ratio	20	10	?
Number of shares	150,000	300,000	?
Total earnings	\$375,000	\$900,000	?
Total market value	\$7,500,000	\$9,000,000	?

There are no gains from the merger. In exchange for The Queenstown Inc shares, Dah Hsian Inc issues just enough of its own shares to ensure its \$3.00 earnings per share objective.

- (5 points) Complete the above table for the merged firm.
- (5 points) How many shares of Dah Hsian Inc are exchanged for each share of The Queenstown Inc?
- (5 points) What is the cost of the merger to Dah Hsian Inc?
- (5 points) What is the change in the total market value of Dah Hsian Inc shares that were outstanding before the merger?

After the merger, the discounted future cash flows for the acquisition in the next year are uncertain and could be either \$13,500,000 (high scenario) or \$6,500,000 (low scenario). The appropriate discount rate is 7%. Assume Dah Hsian Inc has the option to abandon the acquisition at the end of the year by selling off the assets acquired from The Queenstown Inc for \$8,500,000.

- (5 points) Calculate the risk-neutral probability for the high cash flow scenario.
- (5 points) What is the value of the abandonment option for Dah Hsian Inc?

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<p>2. NCCUC Plc. has 2,400 20-year bonds outstanding with coupon rate of 5% paid semiannually. Comparable bonds are yielding a pretax return of 6%. The company also has 130,000 shares of common stock outstanding. The common stock has a beta of 0.92 and sells for NT\$368 per share. The risk-free rate is yielding 3.3% and the return on Taiwan Capitalization Weighted Stock Index is 9.8%. The corporate tax rate is 20%, and the exchange rate is 32.00 NTD/USD.</p> <p>Hint: Pay close attention to currency conversions, as some figures are provided in NTD, while others need to be calculated in USD.</p> <p>Calculate the following values in <u>US Dollars</u>:</p> <p>(a) (2.5 points) Determine the weighted average cost of capital (WACC).</p> <p>(b) (2.5 points) Calculate the current market value per share of NCCUC Plc., assuming the company generates consistent annual earnings of \$60,800 for 20 years.</p> <p>Dr. Harford has invented a new technology requiring an initial investment of NT\$48,000 for commercialization. The technology is expected to increase annual earnings by \$3,200 over the next 20 years.</p> <p>(c) (2.5 points) What is NPV of the new technology?</p> <p>(d) (2.5 points) How much would this investment impact NCCUC Plc.'s stock price?</p> <p>3. The growth of passive investment strategies, such as index funds and ETFs, has raised concerns about potential agency problems between fund managers and fund investors. Unlike active managers, who actively select securities to outperform the market, passive managers primarily aim to replicate the performance of an index. Critics argue that this shift may reduce the incentives for managers to act in the best interests of investors and could lead to broader governance implications for portfolio companies.</p> <p>(20 points) Discuss and raise an example for the concept of agency problems in the context of fund management.</p>					
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一、填充題或簡答題 (83%)

註：若該小題沒有標註為簡答題，皆為填充題。填充題只需寫出答案，不需計算過程。

註：請按照題號作答，否則不予計分。

1. To investigate the relationship between the number of years of experience (x) and the annual sales of a salesperson (Y), a sales manager randomly selected 10 salespersons to collect data. The 10 observations of (x, y) are denoted by (x_i, y_i) , $i = 1, \dots, 10$. The data are given in the following table. Consider a simple linear regression model

$$Y = \beta_0 + \beta_1 x + \varepsilon.$$

id	1	2	3	4	5	6	7	8	9	10
x	2	5	5	4	7	9	14	11	11	12
Y	83	95	105	100	106	114	139	122	126	120

Note: It is known that $\sum_{i=1}^{10} x_i = 80$, $\sum_{i=1}^{10} y_i = 1110$, $\sum_{i=1}^{10} x_i y_i = 9448$, $\sum_{i=1}^{10} x_i^2 = 782$, and $\sum_{i=1}^{10} y_i^2 = 125652$.

- (a) (5% , 簡答題) Why do we have to incorporate the error term, ε , in the model?
- (b) (5%) Find the least squares estimates of β_0 and β_1 .
- (c) (5%) Given that the residuals are $-6, -5, -4, -3, 1, 1, 1, 4, 4, 7$ (not ordered in their id), calculate the sum of squares due to error.
- (d) (5%) Compute the coefficient of determination. Comment on the goodness of fit. (簡答)
2. The *LifeCycleSavings* dataset from Belsley, Kuh, and Welsch (1980) is adopted to investigate how the savings ratio is explained some independent variables, including the percentage of population less than 15 years old (pop15; X_1), the percentage of the population over 75 years old (pop75; X_2), per-capita disposable income (dpi; X_3), and the percentage rate of change in per-capita disposable income (ddpi; X_4). There are 50 observations in the dataset. The regression model is

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon.$$

Partial of the outputs are given on Page 2.

- (a) (5%) Find the (D1) and (D2) in the ANOVA table.
- (b) (5%) Find the (D4) in the ANOVA table.
- (c) (5%) What is the interpretation of $\hat{\beta}_1$?

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(Cont. 2)

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F
Regression	(D1)	(D2)	(D3)	(D4)
Error	650.71	(D5)	(D6)	
Total	983.63	(D7)		

Predictor	Coef	SE Coef
Constant	28.57	7.35
pop15	-0.46	0.14
pop75	-1.69	1.08
dpi	-0.0003	0.0009
ddpi	0.41	0.20

3. (5%) Consider the hypothesis test: $H_0: \mu \leq 100$ v.s. $H_a: \mu > 100$, where μ is the population mean. A sample of 100 individuals is drawn and surveyed. The population standard deviation is known to be 5. Using a 0.02 level of significance, what is the power when the actual population mean is 102 ?
4. A survey in 2024 showed that 70% of all individuals ages 66 to 75 are well prepared financially for retirement. Many financial planners express their concern that a smaller percentage of individuals in the 56 to 65 age group are well prepared. Denote p be the population percentage of individuals in the 56 to 65 age group being well prepared financially for retirement. Conduct a hypothesis testing $H_0: p \geq 0.7$ v.s. $H_a: p < 0.7$, and α is set to be 0.01.
- (a) (5%) In a random sample of 200 individuals from the 56 to 65 age group, 65 were not well prepared financially for retirement. Compute the smallest level of significance for which we could reject the null hypothesis.
- (b) (5% , 簡答題) Explain why should we compute the quantity in (a) when we mention “smallest level of significance for which we could reject the null hypothesis.”
5. The website for a certain hotel in Taipei gets, on average, six visitors per hour. Suppose the number of website visitors per minute follows a Poisson probability distribution.
- (a) (5%) What is the probability that no one will access the website in a 12-minute period?
- (b) (5%) What is the probability that the time between website visitors will be between 6 minutes and 12 minutes?

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6. There are three main supermarket chains (supermarket A, B, C) in the Denver area, and each of them claims that their chain has the lowest overall grocery prices. Students taking the statistics course try to conduct a survey to determine whether the mean price of groceries are the same across the three supermarket chains. Students randomly selected six grocery items. They visited the three supermarkets on the same day, and each of the six items was purchased once in each of the three supermarkets. The data were recorded in the following table.

Assume that the error term of one treatment follows a Normal distribution, and these Normal distributions have the same variance. Assume further that responses are independent. Use a 0.05 level of significance.

Item	supermarket A	supermarket B	supermarket C
1	11	10	12
2	16	19	22
3	22	20	24
4	39	44	43
5	36	32	37
6	56	55	60
sample mean	30	30	33
sample variance	282.8	289.2	297.6

- (a) (7%) Compute the Sum of Squares for Treatment.
- (b) (8%) What is the value of the test statistics for testing whether the mean price of products are the same across the three supermarket chains?
- (c) (8% , 簡答題) Suppose that we further find out the critical value of this testing, and the result is to reject the null hypothesis. What is your interpretation about this result? What is your plan for the next step of analysis (what is the tool or method you are going to use)?

備

註

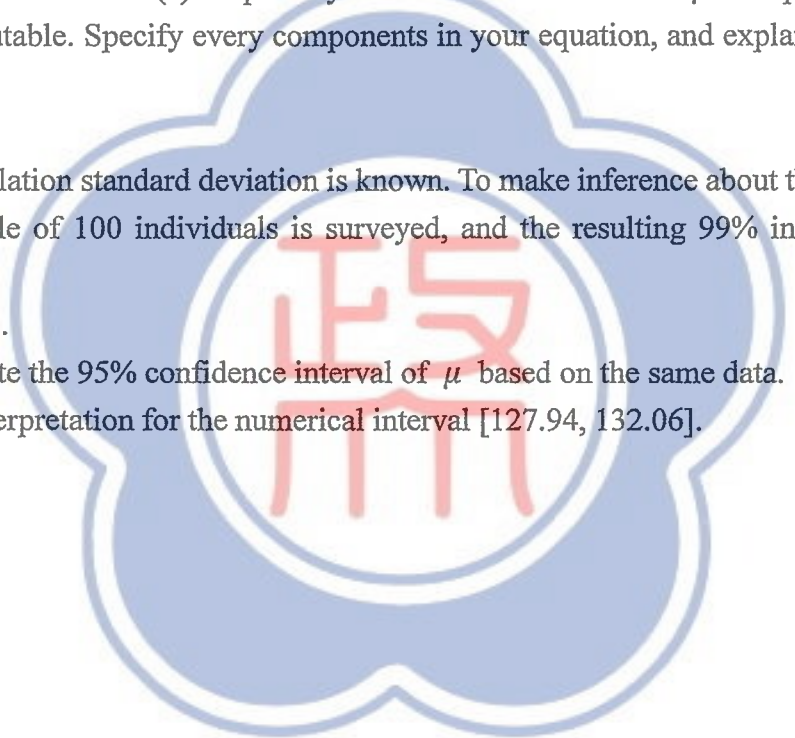
- 一、作答於試題上者，不予計分。
二、試題請隨卷繳交。

考 試 科 目	統計學	系 所 別	財務管理學系	考 試 時 間	2 月 12 日(三) 第 四 節
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二、計算題或簡答題 (17%)

註：請寫出計算過程，否則不予計分。請清楚標示最後的答案。

7. Let μ denote the population mean. To make inference about μ , we generally use the sample mean to estimate μ . Based on observations x_1, x_2, \dots, x_n , we are able to compute sample mean \bar{x}_n .
- (a) (2%) Explain why it is impossible to compute the difference between the sample mean and the population mean, that is, $\bar{x}_n - \mu$.
- (b) (5%) Provide an alternative of (a) to quantify the “difference” between μ and point estimation, and this alternative is computable. Specify every components in your equation, and explain why this alternative is computable.
8. Suppose that the population standard deviation is known. To make inference about the population mean μ , a simple random sample of 100 individuals is surveyed, and the resulting 99% interval estimate for μ is [127.94, 132.06].
Note: $z_{0.005} = 2.575$.
- (a) (5%) Please compute the 95% confidence interval of μ based on the same data.
- (b) (5%) Give your interpretation for the numerical interval [127.94, 132.06].

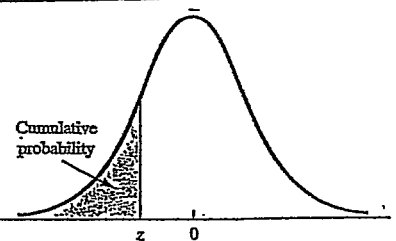


備 註	一、作答於試題上者，不予計分。 二、試題請隨卷繳交。
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考試科目	統計學	系所別	財務管理學系	考試時間	2 月 12 日(三) 第四節
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Table of the standard Normal Distribution (its cumulative probabilities)

z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
-3.0	.0013	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010
-2.9	.0019	.0018	.0018	.0017	.0016	.0016	.0015	.0015	.0014	.0014
-2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
-2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
-2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
-2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
-2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
-2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
-2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
-2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
-2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
-1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
-1.8	.0359	.0351	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
-1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
-1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
-1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
-1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0721	.0708	.0694	.0681
-1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
-1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
-1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
-1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
-0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
-0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
-0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
-0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
-0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
-0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
-0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
-0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
-0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
-0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641



備

註

- 一、作答於試題上者，不予計分。
- 二、試題請隨卷繳交。